

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

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## Original Correspondence.

## SIR RODERICK MURCHISON ON COAL NEAR LONDON.

SIR.—In a paper read on Monday by this distinguished geologist, before the Geological Section of the British Association, he remarks that the recent well-sinking at Harwich completely solves the problem as to the existence of coal in the wide area in which London lies. There the trial ended in the discovery, beneath 1025 ft. of the cretaceous rocks, of a hard slaty rock, with possidonia, belonging to the lower or carboniferous limestone, "evidently older than any coal-bearing strata;" and he remarks further that specimens of this rock are preserved in the Museum of Practical Geology, as a warning to speculators who would search for coal in the Eastern or South-Eastern counties of England. Now the inference that I would draw from this discovery is very different from that of Sir Roderick. It appears to me to be a confirmation of the views of the advocates of coal near London—that the unconformability of the strata leads them to expect that the coal measures may be found near London, for if we find measures below the coal to exist at Harwich, we may reasonably expect a change at London, which lies at a considerable distance. To understand this, one has only to take a map of any of the English coal fields (Newcastle perhaps excepted), and he will surely be able to find that points of the Old Red Sandstone do not crop out on each side of the basin in less than ten or twenty miles. Especially will he find this case in the Bath field and in the Scotch coal field; indeed, at one point of the latter (near Edinburgh), from the centre of the upper coal measures to the Red Sandstone does not measure more than two miles, perhaps. Numerous instances will likely occur to your readers where basins of coal exist, bounded on all sides by Old Red Sandstone at a very short distance. So far, then, the fact of the Harwich provings is hopeful. But there is hope even for Harwich, and it is a wonder that Sir Roderick did not remember it.

The lower carboniferous series which the well arrived at, or the calciferous sandstone group, is the group in which, in Scotland, the famous oil-bearing shales exist, and where, at West Calder and Bulghalt (near Edinburgh), such large manufactories for distillation of oil from these shales already exist, or are in progress of erection. These shales, in some places, will yield from 20 to 35 gallons of oil per ton of shale, and every acre of ground in which they exist contains from 200,000 to 300,000 gallons of oil. So that, even at Harwich, there may be something worth looking after.

The question is one of the greatest importance, and it is to be hoped that it will receive that attention which it deserves at the hands of the Commission. But, after all, what we want are facts. Down with a bore-hole, or a few of them, if necessary. We have had plenty of theorising.

## OIL AS A SUBSTITUTE FOR COAL.

SIR.—Will you permit me to make a few remarks in the *Mining Journal* upon the notice of my invention which appeared in the *Times* of this morning,\* in noticing the Parliamentary Paper just published on Oil as a Substitute for Coal? The experiments at Woolwich were necessarily commenced with the best and more expensive petroleum; nothing was known of their properties as fuels. The result has proved that those which contain spirit and burning oil are not so well suited for fuel as those from which both have been extracted. But until a method was arrived at of getting rid of the smoke no other could be used. The smoke was mastered by simply decomposing a little water vapour—carbonising and burning the gases. The heavy oils as they are termed (those from which the spirit and burning oil have been extracted), are about the consistency of gas-tar. In cold weather they set, or become like soft butter, but a temperature of 60° renders them liquid. They contain about 25 per cent. more or less of paraffin. Of course, there is not the slightest danger of this catching fire or exploding. Their market price is at present 5s. per ton, but a Burslem manufacturer told me yesterday they caused the makers such heavy loss, from their being so little in request, that they would be sold in large quantities at from 3s. to 4s. per ton. As fuels, they do not vaporise very readily, but burn on the surface of the grate like tar. The water-gas completely masters them, causing little smoke. The mistake hitherto made is attempts to burn the petroleum by vaporising them. The inventors say a little coal is sufficient for vaporising the oil. Now, a little coal is only sufficient to vaporise the spirit and burning oil—about 30 per cent. of the whole mass. Certainly the heavy oil could be vaporised, but it would require as much heat as the oil would afterwards give in burning.

Should the heavy oils become the fuels for which they are so admirably adapted, large quantities of burning oil would be manufactured, the gas evolved in the process, now suffered to escape, would be collected, additional gain both to the maker and the public would accrue, and the price of the oil be still further reduced. When we remember that gas-tar is the same as the heavy oil, only in a more concentrated form, and that it can be obtained in any quantity at 18s. per ton, cheapness would be the result of an enlarged manufacture. It is sufficient to add that the American petroleum is now 7s. per ton instead of 17s.; the shale oil (British) 7s. (has been selling for 5s.) instead of 10s., and the latter is the same price at Australia, America, and other places, while for coal the price is from 2s. to 3s. 3d. Kensington-square, Aug. 31. C. J. RICHARDSON.

\* The following is the paragraph referred to by Mr. Richardson:—

**OIL AS A SUBSTITUTE FOR COAL.**—A Parliamentary paper just issued gives an account of the results of some experiments recently made at Woolwich Dockyard with the view of testing the value of petroleum and shale oil as substitutes for coal in raising steam in marine boilers. The experiments were conducted by Mr. Richardson, who had proposed a plan of employing oil instead of coal. The report of the results is not of a very decisive character, but it shows that the value of various oils for the purpose in view varies considerably. Thus, a mixture of American oil and "coal oil once run" only evaporated 77 lbs. of water per pound weight of oil, while 1 lb. of Welsh coal evaporates 9 to 9½ lbs. of water. The experiments with "coal oil once run" alone gave a better result, the evaporation being 10½ lbs. of water, but the rate of combustion of the oil, and the rate of evaporation of the water per square foot of grate, were low, and the smoke tubes became very foul. The best results were obtained from the use of Burslem oil, which evaporated 18-38 lbs. of water; shale oil, 17-92 lbs.; and Torbanhill mineral oil, which evaporated 18-38 lbs. The smoke from each kind of oil was very moderate, and the tubes at the conclusion of each experiment were tolerably clean. The report concludes that if results as favourable as the three last mentioned can be obtained under ordinary circumstances, it would appear that 1 lb. of oil will evaporate about double the weight of water which 1 lb. of coal burnt in the ordinary way would evaporate, but at the same time the greater cost of oil (from 10s. to 23s. per ton) must be taken into consideration. If, however, a great reduction were to take place in the price of the oils, "probably under some circumstances they might be advantageously used instead of coal." The experiments, therefore, as far as they have gone, may be regarded as of considerable value in showing the great evaporative power of these oils, and the practicability of burning them according to Mr. Richardson's plan.

## THE COPPER TRADE, AND ITS PROSPECTS.

## NEW FIELDS FOR PROFITABLE INVESTMENT AT HOME.

SIR.—I observe from the *Mining Journal* of last Saturday that, in the opinion of one of your correspondents, Mr. Spargo, the produce of copper in this country will rapidly decrease unless numerous and productive discoveries are made. Now, if this opinion is well founded, and I think it is, and if Cornwall and Devon are no longer to be looked to for such discoveries, I am fully persuaded, from many personal enquiries, and many personal observations, that there are vast deposits of copper ore, twice the richness, as a rule, of Cornish ore, not only in the South and West of Ireland, but in North Lancashire, where it borders on Cumberland, if not in the South of Cumberland itself, and which I had incidentally confirmed by a thorough practical miner, particularly well acquainted with the latter districts. If this be so, then why should capitalists go to the ends of the earth in search of copper ores, when there are such extensive fields at home for the profitable investment of their money? As one proof of what I have advanced, there are, what may be known to some of your readers, very extensive copper mines at Coniston, North Lancashire, in private hands, which I have occasionally visited, and which have been very profitably at work for very many years. It has been mentioned to me by practical men, who know that district well, that to open up a mine in it is to open what will last for generations. The ores of the above mines I am informed are double the value of those in Cornwall. As we are just emerging from an unprecedented depression in mining, and as this department of industry is partaking of the general buoyancy, capitalists and speculators would do well,

in my opinion, to turn their attention to the mining districts I have referred to.—Aug. 28.

## PROOF OF SLATES BY FIRE.

## MANAGEMENT OF QUARRIES, AND QUARRY ACCOUNTS.

SIR.—I have adopted the precise heading of a letter from "Cambrian," in last week's *Journal*, and I have to confess to a feeling of great surprise on perusing the introductory paragraph of that letter, in which the writer states—"From the heading of a letter by Mr. Harvey, in the *Journal* of June 23, we had expected to find some remarks on his principal heading, 'Proof of Slates by Fire,' but were much disappointed that we found no allusion whatever to that subject in his letter." Turning to my letter of June 23, I can only conclude that "Cambrian" has mistaken some other letter for the one in question, or has trusted to a treacherous memory, for I find distinct reference there to the subject of "Proof of Slates by Fire;" and twenty lines of the introductory part of that letter are taken up with strictures on the assertion of the "Welsh Eagle," who, in his letter of May 26, stated—"Therefore this proof of slates by fire is no guide to its durability, quite the reverse." In my letter of June 2, he had been challenged to furnish a proof of that statement, but no response had been made; and my letter of June 23 was mainly and substantially upon that subject, one sentence of which was the following:—"The 'Welsh Eagle' has not attempted to maintain his assertion, that this proof of slate by fire is no guide to its durability, quite the reverse." Why did not "Cambrian" contest this absurd assertion? I, therefore, beg to refer "Cambrian" to the letter itself for further statements on the subject, which letter completely negatives his—no doubt unintentional—misstatement; for my letter of June 23 is distinctly to the same point as that of June 2, when, "Cambrian," says, I retired from the discussion. I scarcely know what remains to be said about it further, and, if discussion it could be called, I had contributed more to it than any other person, for I had not only furnished the facts relating to the "Proof of Slates by Fire," and named the quarry whence the slates came, but I also furnished the analysis of the slate which bore the test of "proof by fire," and invited similar contributions from others, but none have been forthcoming from "Cambrian" or any other person.

"Cambrian" has neither named the slates nor furnished the analysis of any which have borne the test, but contents himself with objecting to the proved composition and characteristics of the slates I have referred to, as if a crude, undigested speculation were stronger or more worthy of reception than a proved fact. If "Cambrian" will furnish any new facts, I shall be glad to aid further discussion on that or any other subject relating to slates. At present I shall conclude this portion of my letter with a quotation from one of mine, published on May 12, when I appended the analysis of the Prince of Wales slate: I then stated, and now reiterate the same:—"It seems to me to be likely to lead to no useful result to speculate on what, in our judgment, ought to be the constituents of the best and most durable slate. When we get an analysis of what we consider, or have proved to be, the best, we are at a loss to determine to which, if to any one, of the particular constituents we can properly attribute a particular quality of the slate. Our knowledge of such matters is exceedingly limited—probably, to the very complex combination, which ignores or rejects the theory of the simple union of 'silica and alumina' as the proper elements of the best slate we owe the fact of the existence of some singular properties. Suppose, therefore, instead of speculating on what we think should be, we take the actual, and deal with what is." I commend those observations to "Cambrian's" consideration, and recommend him to accept the following as a fact, which no theory or argument can affect:—That the slate which, in all essential respects, has been proved to be the best, or most perfect, contains the proper combination of silica, alumina, iron, lime, magnesia, water, potash, and any or every other substance of which it may be composed, and that it will be wiser for us to be students of Nature's mysteries than to weary our minds by inventing theories or prescribing laws for regulating the forces in operation in the universe, the results of which alone we are permitted to see.

If "Cambrian" is not a Welshman, the signature is calculated to mislead, and ought not to be used; and, if a Welshman, and practically engaged in slate quarry operations, his name would give proper weight to his remarks. It does not add to the value of an argument, but is evidence of good faith, to have a real signature, and to know with whom you have to debate a subject. I never published a letter in my life except with my name appended to it.

The writer quotes Dr. Bower's pamphlet, and I assume from that, and other internal evidence, that he is not one of Cambria's sons. If I mistake not, some of Dr. Bower's statements were controverted by a Welsh correspondent, and it is to be regretted, if there were any admitted errors in that publication, that it should still be advertised and circulated without correction.

The skeleton forms of accounts, furnished by "Cambrian," appear rather to be the production of an amateur than of a practised Welsh quarry manager, and if intended to pass under the scrutiny of a public accountant or auditor, would have to be framed in a different manner.—Carnarvon, Aug. 29. THOMAS HARVEY (of London).

## SLATE QUARRY MANAGEMENT, AND ACCOUNTS.

SIR.—"Cambrian Eryr," in his letter of March 17, makes the following statement:—

"The writer has had a long experience in the management of slate quarries for many years, during which time he has had several under his control and has paid dividends of 20s. to 150s. per cent. per annum, including the advance in the value of shares; so this clearly shows that the Cambrian hills will give their treasures in abundance to those who have had practice and experience to develop them. The reader can enquire which of the Welsh slate quarries pay dividends, and he will soon discover they are those that are managed by the sons of Cambria, as the writer knows of no Welsh slate quarry that does really pay dividends but those managed by practical Welshmen."

"*Factis non verbis.*" Now, as the writer states he has had a long experience in the management of slate quarries for many years, and has paid dividends of 20s. to 150s. per cent. per annum, may I take the liberty of asking for the names of the different quarries so well and successfully managed by him, and in which such excellent dividends have been paid; even though, like many other men of mark, his extreme modesty may deprive us of the pleasure of recording the name of so great a benefactor? Of course, "Cambrian Eryr" is still in the management of those excellent quarries—in fact, I should vote for his having the management of all the quarries in Wales, for those proprietors who are not content with profits ranging from 20s. to 150s. per cent. per annum must have a most unreasonable man for dividends, and never will be satisfied with any amount they may receive. I can record an instance within my own experience in the Prince and Princess of Wales Slate Quarries, in which a proprietor, who received 95 per cent. the first year, on all his outlay, not from working profit certainly, but by a sale of a small portion of the property, had the coolness to enquire why he did not get the other 5 per cent.

From this fact you may perceive how unreasonable many persons are. In addition to those quarries from which "Cambrian Eryr" has realised from 20s. to 150s. per cent. per annum, will he be good enough to name the new quarries, of which he has now the management, and which he is gradually bringing into the same state of happy productiveness? It is impossible, so far as I can see, or come to any conclusion upon the subject, that a manager of such pre-eminent ability and integrity, who produces such splendid results, can ever descend from the proud position which great success naturally commands, and have no quarry, no proprietors, no profits, no dividends, to distribute among his anxious and trusting employers.

But, for a moment, suppose I descend from this imaginary and Utopian state of things, and affirm, not suppose, that in all this wide and intensely interesting, and wonderfully productive Principality, that real merit and modest worth, like that of "Cambrian Eryr," have sunk so low that none of his own countrymen (*clannish as it is well known the Welsh are*), at this moment confide to him the management of any slate quarry in Wales.

"After *Disraeli the Deluge*," and after the "Eagle the English," whose money is the main source from which all the quarries in Wales are worked, but who, according to the theory of this giant of birds, have no claim to look after its expenditure. If the "Eagle" should be so modest as not to furnish the names of his numerous profitable quarries, I will endeavour to get out a correct list for him of those

he may have had under his control, for "better or worse;" and the proprietors at least will, I hope, furnish me with the actual amounts of their dividends, the range being so extensive, from 20s. to 150s. per cent. Does he mean that the profits went into the pockets of the shareholders, or into whose pocket? I suspect the accounts will show the balance on the wrong side. Slates, 7000s.—cost, 9000s., is not promising for a dividend. I should like much also for him to refer me to the owners of these successful quarries for a testimonial, and if he have given up the management, and they have suffered a great reverse since he left them, how can he resist all their undoubted entreaties to "come back." His modesty seems to overshadow all his other merits.—Carnarvon, Aug. 29. THOMAS HARVEY.

## MANAGEMENT OF QUARRIES, AND QUARRY ACCOUNTS.

SIR.—In order that every particular for working quarries, and for ascertaining that the works are going on correctly and economically, it will be well to give a few more little details, which will throw light on the subject. The pay-day is usually, perhaps it might be said universally, one fortnight after the end of the working month. The first week of this month is, or ought to be, engaged in preparing the pay-sheet, of which the form was last week given, and in order to complete this it will, of course, be necessary that the quarry captain (who will, of course, have charge of all quarry supplies—iron, steel, powder, fuse, oil, new working tools, &c.) should have a book at his private office, containing the names of the men in each bargain, in which he can invariably enter every particular article furnished to any man of any bargain, with the date when furnished. A form of this could be given, but the process seems so plain that it seems unnecessary to annex it. A duty then devolves on the secretary of the company at the end of every six months to ascertain how far the quarry captain's accounts tally with the various stores delivered to the last-named official during the preceding six months, together with the stock in hand at the commencement of the former six months placed to the debtor side, and the stock remaining in store to the creditor side of the account. This leads us to another necessary form connected with the monthly pay-sheet—the pay-tickets, of which one form will be quite enough:—

PAY TICKETS FOR MONTH ENDING JULY 1, 1866.—PAY, JULY 15, 1866.		
No. 4—W. W.	Gross amount of pay	£12 8 0
Deductions—Powder and fuse	£0 7 0	
Iron, &c.	0 1 6	
Smith	0 0 6	
Rent	0 3 0	
Club	0 3 0	
Oil	—	
Money advanced	—	0 15 0
Balance	£11 13 0	

In order to make these pay-tickets not only as useful but as convenient as possible they should—1. Be printed in duplicate.—2. The first of the duplicates should be stamped with a receipt stamp on the duplicate itself, and signed by the taker of the bargain, who will alone attend to receive the pay, as the contract for letting the bargain is made with him alone.—3. That there should be a perforation between the duplicates, similar to that between postage heads. The perforation will be found very convenient for tearing off the second half of the duplicate, in order to place it in the hands of the bargain taker, for the satisfaction of himself and the other men in the bargain. This system has been adopted for years, with only complaint from a solitary bargain, who before many hours were over was satisfied that the ticket was right.

These few additions to the letter in last week's *Journal* were thought necessary to render the subject of the pay-sheet a little more complete, and it now seems desirable to rest for a week or two, in order to ascertain what the feelings of your readers may be on the subject so far mooted, and to reserve until then the most important subject of the balance-sheet.—Aug. 27. CAMBRIAN.

## THE ADVANCE IN WAGES—WHAT DOES IT MEAN?

SIR.—The employers of labour in Wales have, during the last two or three years, had a serious time of it. In addition to the general advance in the price of labour experienced throughout the kingdom in later years, we in the Principality have had to bear the brunt of a competition so severe that those at a distance would hardly believe. Formerly, as a general rule, mines only competed with mines in the labour market. Now, however, railways have been, and are being, constructed throughout the length and breadth of the land. Not far short of 10,000,000s. of money has been laid out in the construction of Welsh railways in the last few years. These works absorbed a large share of Welsh labour. Slate quarries have also been opened, and money expended to enormous amounts; these, again, competing with already existing quarries and mines. The cry amongst the working men has been Advance of Wages. I would refer to one instance in particular, just to show what an advance of wages means. This time 12 months there was a partial stand out for an advance in the Penrhyn Slate Quarries, near Bangor. It appears the demands of the men were acceded to. The owner of this great quarry, Col. Pennant, has just been made a peer of the realm, under the title of Baron Penrhyn, on which occasion great rejoicings took place amongst his workmen, tenants, &c. In these demonstrations it came out, as a fact, that the wages of the men had been advanced 1s. a day, on the average, during the last 12 months, each man having received about 15s. more this year than the last. This, for 2000 men, shows that Baron Penrhyn has had to pay 30,000s. more in wages last year. That is a significant fact. Had it been in the Devon Great Consols Mines it would have absorbed more than half the dividends. There are no signs of a less demand in the slate labour market. It is some consolation to think that the construction of the great railways is drawing to a close, when, no doubt, a large number of labouring men will return to their original employments on the rocks and mines of the Principality. EDWARD DAVIES.

Dolcarradog, Aug. 27.

## CORNISH MINING.

SIR.—Mr. Merrifield's letter, as referred to in last week's *Journal*, has given rise to the discussion of a subject which should have the attention of all persons connected with the mining interest. Although Mr. Merrifield's statements are not altogether correct, as has been shown by Messrs. Higgs and Son, still there is no doubt that, unless a favourable change in the prices of tin and copper takes place, a great number of the deep mines which are now working at a large monthly loss must eventually be abandoned; but this, I anticipate, will have a favourable effect, as the discontinuation of the supplies which are being regularly sent to market by these unprofitable mines will cause a rise in price, the market being in a great measure governed by supply. The miners of Cornwall have always been considered the most efficient in the world, and, consequently, are eagerly sought for by those parties and companies who are opening mines in other countries; to this fact I am greatly inclined to attribute emigration, and not so much either to the increase of the population or to distress, as I find upon enquiry that it is not the poorer class of people who leave the county, but those men who have the reputation of being good miners, and who can always earn fair wages, either at home or elsewhere. The working miner, however, is not the only man who is induced to seek his fortune in foreign lands, the managers and agents of nearly all foreign mines of note being Cornishmen, and even mine brokers and mining share dealers, from Truro, Redruth, and Camborne, may be found in London, Liverpool, and Manchester, where there is greater scope for their abilities. The system of working mines by tribute, which, I am sorry to say, is gradually dying out, formerly kept a great portion of the most experienced miners in Cornwall, and now that discoveries are so desirable, I would suggest to managers the encouragement of this mode of working in every possible way. In many mines important and valuable discoveries have been made through the determination and practical experience of tributaries, which, in the usual course of development, would never have been known. Many undertakings have lately been brought forward for the purpose of commencing new mines, and the development of districts, which have hitherto had little attention paid to them. Should some of these prove successful, of which I should say there is little doubt, they will give a new impetus to Cornish mining, and improve the circumstances of "One and All" connected with it; but capitalists are not sufficiently philanthropic to expend their



money in mining, merely for the sake of finding employment for miners; but if it can be shown that there is a field for profitable investment, they will not be less ready to support it than they are to apply their capital to railways, docks, and all legitimate undertakings by which the country and people are benefited. That mining is more speculative than most commercial undertakings is known to all, but it must be remembered that a rich mine requires no floating capital, and generally pays a much larger rate of interest than the most profitable commercial business, and it is most frequently found that where judgment is used in the selection of mineral sets, with proper regard to economical working and efficient management, success is the result. The activity which now exists in the mining market, and the general upward tendency of the prices of minerals, will in all probability lead to a demand for mining securities, but I would strongly advise investors to use great care in the selection of shares, and to choose those in progressive shallow mines in preference to very deep and costly undertakings, which have been so much sought for during the past few years.

Great St. Helen's, Aug. 28.

CHARLES THOMAS.

#### MINING IN CORNWALL AND DEVONSHIRE.

SIR.—Some very able letters have recently appeared in the Journal on the subject of the great depression the tin and copper mines in Cornwall and Devonshire have recently had to contend with. The supply and demand governs the price of every commercial commodity. The reason why so much poverty has existed during the last 12 months is partly owing to the large mercantile failures, arising from various causes; the high rate of interest in particular, no doubt, is the primary cause, causing a suspension of trade; and the increase in the quantity of tin sent into the market, to meet the deficiency in price and keep up the dividends. Were the Dutch merchants to send a less quantity of tin, and the deep and expensively wrought mines to send less tin and copper for a time also, the market would soon recover itself, now that peace is established on the continent of Europe. We may hope that our continental neighbours will see the advantage and happiness that trade and commerce produce in preference to war; and with such a beautiful harvest this summer we may hope for a great increase in trade this autumn. The landowners of this country, in particular, have it in their power not only to assist the capitalists and industry of the country, but their interest also depends upon the success of our mines to a great extent. How can the landed interest get their rents from the numerous cottages in the mining districts if the labourers are obliged to seek a foreign country to exist in? and the same will apply to the towns. There can be no doubt that our deep mines cannot meet the competition with such an island as that of Banca and others, where tin is found as formerly in this country—near the surface; but attention for the future should be directed to the discovery of new mines. Our ancestors realised large fortunes when tin was under 40s. per ton. It is a fact that our minerals, such as tin and copper, decline in quality as our mines get very deep, and had half the capital been invested in the discovery of new mines, instead of embarking such immense sums in re-opening old and exhausted mines, we should doubtless have employment for thousands of our mining population, who are obliged to seek an existence elsewhere, and whose labour and talents will eventually be brought to bear against our mining interests at home.

It is no more notorious than true that with the general depression in trade the majority of our richest mines have become poor. Several of our oldest and deepest copper mines, particularly in the Camborne, Redruth, and Gwennap districts, after yielding immense deposits of copper ore during the last half century, amounting to millions sterling, at a certain depth became poor for copper, and by perseverance many of these rich mines are now yielding very large quantities of tin, after passing through a stratum of intermediate ground for some 30 or 50 fathoms in depth. But to raise tin at this great depth, and increase of quantity, is the secret of much of the poverty now spoken of. Deposits of minerals, like everything else in its turn, become exhausted. Our hope for the future must be in the discovery of new mines. Neither Cornwall nor Devon is exhausted in mineral richness, and there cannot be a question but there are great deposits of minerals yet to be discovered. If the lords of the mines were to give up the dues for a time in some of our poor mines, and reduce the dues to one-half in the struggling mines, the shareholders would, in many instances, be induced to make further explorations, and no doubt but new lodes would be found in many of the now poorest sets. Many of our most experienced and most able managers of mines have had immense difficulties to contend with of late. A rich mine is said to manage itself, but to make both ends meet in a poor mine is the difficulty. When prices of minerals are high, tributaries can afford to speculate their labour on a larger scale, and, by encouraging tributaries, many a mine labouring under difficulties for months, and at times years, becomes rich, by a mere accident, in numerous instances. Several of our richest mines I could name, after resolutions passed at meetings to abandon all operations, by throwing the pick into a supposed poor piece of ground, a discovery has been made, the original outlay of capital paid back, and immense profits realised. An instance has very recently occurred in the West of Cornwall: about one-third of the shares have been given up in a certain mine, when, by perseverance, a rich lode of copper has just been cut into, and it is to be hoped the patient shareholders will reap a rich reward.—Aug. 27.

A. BENNETT.

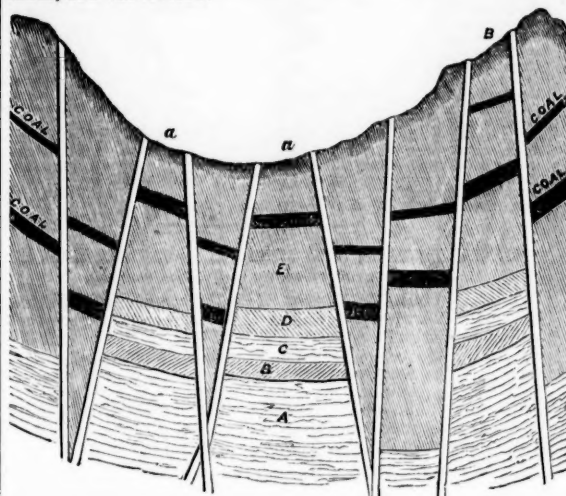
#### COAL, AND THE PROSPECTS OF ITS LASTING.

SIR.—A question was brought before Parliament in the late session as to the quantity of workable coal remaining in England, Wales, and Scotland, together with the present consumption, and the probable time the remainder will last. Economy is good in itself, but I am not alarmed at its not being practised in this case, nor am I frightened at the prospect of the world's inhabitants being left without fuel. Science is advancing with such rapid strides that it leaves little doubt but that something as a substitute will be discovered long before coal becomes extinct. Nature provides for all creation, one thing being ever superseded by another, and will ever continue to be so.

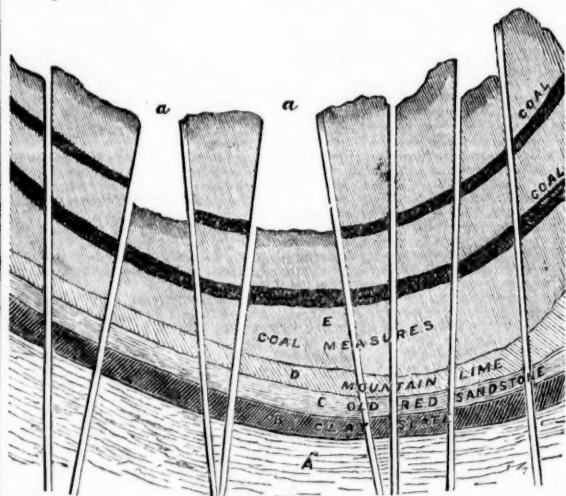
Many men have given it as their opinion that there is an endless quantity of coal, but too deep in the earth for man to follow. With this I do not agree, for coal is ever found in the secondary formations, and I contend the plain facts are that it was first formed under the sea long after the so-called "primitive rock" was formed, and even after carbon and lime were formed in large quantities, coal being an after layer, formed from the escaping carbon from the mountain lime formations combining (from affinity) with the passing vegetable matter, consequently it can never go as deep in the earth as the bottom of the sea originally stood, as there are many secondary layers that were evidently formed before the coal. The coal formed in basins going down on one side, then turning flat on the bottom, and rising up on the other. Under no circumstances can it be as deep as the original sea bottom. Coal stands in the earth as shown in section No. 1, as faults in coal, which are caused by the working veins of the earth; these are quite different things from what are called coal veins. Faults go through all coal beds, and every layer of the earth, as lodes do in mines; these faults shift coal up and down in conformity with the angle of their dip, as shown in my section, and this brings as many beds up as it throws down. Coal layers are only stratifications, and cannot be deep. Many men come to the conclusion when they see coal going down at the angle of even 45°, that it will soon go beyond the reach of man, but this is not the case. Coal and all secondary formations only undulate up and down, never going deep. They all turn flat and rise again.

Every watchful geologist sees every known layer in the earth reappear in the distance, and thousands of times in the circumference of the globe, and coal proves this, as it is always found in its own place, and over mountain lime. And I would observe that we have no valid reason for coming to the conclusion that the sea bottom was deeper when first formed than at the present day—in fact, I am inclined to think it was not nearly so deep as at present, but that the sea in every deep portion is still deepening. It is a well-known law that everything in water deposits itself under the laws of gravitation. Then let us suppose that the bottom of the Bay of Biscay is a salt rock formation: it will ever be dissolving and going deeper, and there is no known substance there in quantity and with a sufficient specific gravity that would accumulate on such a deep bottom so as to fill

it, consequently it must be ever deepening. I will next suppose the rock at the bottom to be a light and decomposing one; would not every particle as it disengaged rise, and by the laws of gravity find its level? It is a doubtful question whether bottom sounding was ever attained in these places. Is it anything more than floating rocks and sands? Will cork sink to the bottom? Will wood or even a ship do so? Will lead even find the bottom? If so, show us what is the true specific gravity of any substance that will find the bottom—say, five miles deep. Is the Atlantic cable on the bottom or on floating sands, and will it stand?



Section No. 1 shows two layers of coal, as now found. *a, a*, are rising pieces, and have each their top layer wanting. *a, a, B*, are all rising pieces; the greater portion of these rises took place before the flood passed over the earth, which washed off the top layers, *a, a*, leaving the surface much as now found. *A*, is the primitive rock; this passes up as the pieces rise. Notice a large portion of coal rises upwards.



Section No. 2 shows the coal as it first formed when all the pieces joined. The pieces *a, a*, and the top layer that belonged to it are gone. This section shows clearly that the earth's surface has undergone a great revolution from the flood since the coal formation, and its up and down moves. *A*, is primitive rock. *B*, is clay-slate or gneiss. *C*, is old red sandstone. *D*, is mountain lime. *E*, are coal measures.

The reader will notice in section No. 1 the coal is shown shifted up and down as now found—at *a, a*, the two top layers of coal are missing—they were washed away by the flood. At No. 2 the layers are all placed as they were supposed to have been formed; in that case, the greater portion of the move or shift must have taken place before the flood, as *a, a*, had risen prior to that, so as to be washed away by the flood. I further call to notice that these pieces when put back are about 1-20th short. What has become of it? I also call to the reader's attention that it is only the *V* pieces (point down) that have sunk deep—the bulk of all coal has risen much higher than when formed. I publish these remarks before the Commissioners appointed to investigate the coal formation make their returns, fearing they may have too many F.G.S.'s among them.

I believe no coal has gone deeper in the earth than mines can be worked by two steam-engines, placing one at the surface and the other 600 yards deep. I am also of opinion that a substitute for coal will be found long before the mines get 1000 yards deep. Are the short pieces in the *V* down worth following? Those working coal should calculate as to this.

NICHOLAS ENNOR.

#### FORMATION OF CARBON, METALS, &c.

SIR.—In reply to Mr. N. Ennor's letter, in the Journal of Aug. 18, I would refer him to his of Aug. 4, in which he states the composition of the sapphire to be within two parts of pure aluminium ( $Al$ ). This I ventured to correct in my letter of Aug. 11, by stating that the sapphire contained 98 per cent. of oxide of aluminium ( $Al_2O_3$ ), and not 98 per cent.  $Al$ , as he supposes. As Mr. N. Ennor thinks there is no one with intellect and fertile mind equal to himself, I should be pleased to have the opinion of some of your numerous correspondents on this subject. Most of his other remarks are so evasive as not to be worth notice.—Capel Curig, North Wales.

F. G. S.

#### THE PATENT LAWS, AND THE PUBLIC.

SIR.—As "Colliery Engineer" twits me so truculently on being one of that noisome race, the lawyers, he will possibly not feel surprised at my making use of a forensic witticism in regard to him, by remarking that his letter in last week's Journal reminds me of the old story of the case in which an attorney, finding himself hard pushed to present any reliable instructions to his counsel, wrote for the brief simply, "No case—abuse the attorney of the opposite party." Thus "Colliery Engineer," having had some aspects of the case in favour of patents put before him by Mr. Mushet and Mr. Henry, and further arguments by myself, sees little chance left but to pillory me for my untoward appearance amongst the combatants. However, I can say, with the philosopher of old—"Strike, but hear;" and what I wish him and all anti-patent lawites to hear is this:—The justification of a system is very naturally looked for in its results; and what are the results of the patent law, as far as we can gather, seem to me self-evident. In fact, Sir Christopher Wren's monument, in St. Paul's Cathedral, appears quite *apropos* as a pro-patent law motto, "Si monumentum requiris circumspice;" for we cannot look around, either on the right hand or on the left, without seeing what inventors have done for us. Everywhere the railway presents itself to our view, with the locomotive ready to whisk us away from the smoky haunts of commerce and manufacture to the sweet suburban retreat of domestic comfort, or the pleasant and health-giving watering-place, and when we proceed to take advantage of the opportunity before us we find around all kinds of engines and appliances for saving labour and economising time—steam-engines, hydraulic machinery, and pneumatic apparatus. We take our place in the train. Soon we are speeding along, and observe by the railway side the telegraph wires, by which, in secret and silence, important information affecting the fate of nations, the fortunes of families, and the lives and interests of individuals, is travelling onward faster still than we are, although our pace is that of the swiftest race-horse. We also see rising from the house-tops tall chimneys, which mark, perhaps, a factory where potent chemicals are produced, by the aid of which important manufacturing processes are to be carried on; or, perhaps, these chimneys are the means by which the smoke of the factory steam-engine furnace is carried away into the atmosphere above us; or, should the aspiring shaft be close to a strange-looking circular structure of iron, with attendant iron columns, beams, and rods, bearing no small resemblance to an immense pot-bellied spider, it will evidence the existence of a gas-works, providing the means of illumination for our meanest houses, in a manner equal to what would have been deemed sufficient to suit the splendour of a palace in bygone times.

In the mining and manufacturing districts are to be found inventions and mechanism still more strange and noteworthy—here the blast-furnace, there

the engine beam, with steam-hammers and metal rollers, which beat and turn and twist the intractable metal into a thousand shapes, and fit it for a thousand desired uses. But this is not all; we need not go to the railway, the factory, the mine, or the metal furnace. We have only to enter a London club house, or a modern mammoth hotel, and we shall find that steam and labour saving mechanism are adopted as helpers in the kitchen and in the dining-room, and that the words of the poet Parnell are all but realised—

"Without 'em hands the dishes fly,  
The glasses with a wish come nigh,  
And with a wish retire."

Beyond these things we have mechanical knife-cleaning machines, washing machines, and a host of little domestic appliances, which now stand in the place of cumbersome and scarcely efficient contrivances that our ancestors made to serve their purpose, by the wasteful expenditure of much personal strength and individual skill. What of all this, will probably be "Colliery Engineer's" rejoinder, the Patent Laws have had as much to do with it as the man in the moon. Have they? Let us see. I assert, defying contradiction, that the varied changes and improvements alluded to have required the efforts of the minds of many men, and the exertions of many in making experiments and trials, so as to bring all into the state ready for the public use; and, furthermore, that this has necessitated the expenditure of many thousands of pounds of sunk capital before any merchantable commodities could be produced or dealt in, the only chance of obtaining reimbursement of and remuneration for all which has been dependent upon the legal right to the exclusive enjoyment for a limited time of the profits arising from all these improved productions. And, further, that it is mere twaddle to say that public spirit, trade rivalry, intellectual vanity, or *prestige*, could have induced men to make such great efforts, and expend so much money, merely for the sake of the public good. Does any of these considerations bring corn, wool, oil, and wine into our markets, to supply the public wants free of cost? Does philanthropic regard for the public good build our ships, man our fleets, or keep up our armies? And do we not day by day learn more and more to distrust the great unpaid system? In fact, we Englishmen generally consider that what we can get for nothing is usually worth—Nothing.

I am far from asserting that the present Patent Laws do not produce so large an amount of evil as to make it difficult to strike a balance in its favour, but for all that the balance is, in reality, greatly in their favour, as against a system of no legal property in new and useful inventions and improvements, or, to meet "Colliery Engineer's" manifesto, new and useful changes in the industrial arts. Sure I am that if the efforts of inventive genius are to be carried into practical operation some benefit must be held in prospect, as the result of carrying them into practice.—Temple, Aug. 28.

F. W. CAMPBELL.

#### THE LAKE SUPERIOR MINING DISTRICT.

SIR.—The attention it has attracted locally has for some months rendered me desirous to see and to write you a description of the CALUMET MINE: having recently visited the property, I take the first opportunity to send you a few notes concerning it.

The mine is situated between the Portage Lake and Keweenaw county districts, most properly, however, belonging to the former, being in the same county, and only twelve miles from the principal mines. In the situation, strike, and dip of the deposit of copper it more closely resembles the Portage mines, being a belt running parallel with and forming an integral part of the formation. The direction is north 32° east, and inclination north-west, at an angle of 45°. Keweenaw county mines, with one exception, are all worked on transverse veins.

Work was commenced at the Calumet in the fall of last year, by clearing of an old Indian pit: this was found to be 10 ft. deep, sunk to the surface of the rock, and on the top of a belt of conglomerate. Large quantities of carbonate of copper were found in the sand, or drift, covering the conglomerate, and on breaking into the belt a discovery was made of what is certainly the most curious, if not the most extensive, deposit of copper in the world.

The conglomerate is from 12 to 14 ft. wide, differing from an ordinary belt in the boulders and pebbles which enter into its composition being generally small, and those literally cemented together by native copper. The prevailing colour is red or ochery, stained, I should judge, with oxide of iron. In connection, though distinct from it, and immediately overlying it, is a belt of amygdaloid, 10 ft. wide, worth from 3 to 4 per cent. for metal. The enclosing strata are blue, close-grained trap, firm and solid in the extreme, showing well-defined walls.

Up to this time scarcely any regular mining has been done, the work accomplished and in progress being preparatory. The pit referred to has been sunk to 24 feet deep, and another 200 feet west, opened; an adit for drainage started and brought up to a third pit, 800 feet east from the first mentioned; the overburden, or drift of sand and loose boulders between the pits, removed to a great extent for several feet wider than the copper runs; and machinery erected for drainage and hauling purposes. Between the points named and at all intermediate places, where examined, the belt is of a uniform character, showing every appearance of continued productiveness, both in length and depth.

Going on a mine, one naturally looks for poor rock. The "burrow" is always expected; here there is no burrow, or waste, but the sand and boulders wheeled off from the back of the belt. In all the rock broken you find copper in profusion. Something like 300 tons have been taken out. The pit—more like a quarry, from which it came—is about 30 ft. long, 14 ft. wide, and 24 ft. deep from surface. From this 45 tons of ingot copper have been sent to market, and 20 tons of metal are estimated to be yet lying on the surface, showing a yield of close to 20 per cent. for fine copper. There is no blow, or puff, about this. Everybody up here has seen it—the eminent and scientific, and the prejudiced and distrustful. It has been examined, scrutinised, watched for the produce, and commented on; and though at the start only a few thought it valuable, the general opinion now is that there is no end of copper. I am not of the most sanguine temperament myself, but I saw enough to satisfy me that the Calumet is one of the "biggest things" ever struck. Supposing the extreme length of this deposit to be 1200 ft.—and there is no reason to limit it at twice that—take the width at 15 ft., and say it will not run deeper than 20 fms., this would give for stopping 10,000 cubic fathoms of ground. A cubic fathom will yield 20 tons of rock, and setting the average produce for copper at 15 per cent., and the mine is good for 30,000 tons of ingot copper, a yield equal to the capabilities of the best mine on the Lake for 30 years.

The presence of so much copper renders it difficult to break the rock, drilling being a slow process, \$14 per foot being paid for that work. Taking 1 fm. per man per month as average breaking, this would give a yield of 3 tons of copper per month for every man employed,—six times as much as our best mines can do. Take off from my statements 50 per cent., and then figure for profits, and if your readers do not say, with me, that the Calumet is a 1 among copper mines, I would invite them over to see for themselves. Anyhow, I have some specimens of the rock, which as soon as opportunity offers I will forward you for examination.

The controlling agent for the company is a gentleman of the highest standing as a mining engineer; the mining work being under the able charge of Capt. P. Pascoe, of Gwennap, Cornwall, and to whose kindness I am indebted for most of my information, as well as a good dinner.

I might inform you that I recently had the pleasure of accompanying Mr. Nobel, of nitro-glycerine celebrity, underground. In looking over a series of masses of copper, he stated that, with the oil patented by him, "we could without any difficulty separate it into pieces of half a ton." In two months we are to get some to try the experiment, and should it have the effect stated by him, it will tend to increase the returns of the mass-producing mines of Lake Superior one-half, on the same number of men employed as now. It will be a boon indeed, and in a mine like the Calumet the benefit will be incalculable.—Keweenaw Co., July 28.

MINER.

#### QUEBRADA COMPANY, AND ITS MANAGEMENT.

SIR.—Will you kindly allow me space in your valuable Journal to draw the shareholders' attention to a few facts relating to this company at the forthcoming meeting, as I find it will not be convenient for me to attend? Col. Strange says, in his report, that he appointed a forest-ranger, at a salary of 25s. per month, for the express purpose of preparing the timber for the market. Since his appointment, if he had had only half-a-dozen men to look after, there ought, at least, to have been 1000 tons shipped; but I do not find even the 300 paltry tons sent off which he (Col. Strange) ordered to be got ready. I have let many hundred tons of hard wood to cut and dress at 2s. 6d. per ton. The directors say the railway is made from the Port Tuacacas to the River Aguilinda, a distance of 12 miles. Colonel Strange says, in his report—"From within a mile of Tuacacas to within three of the mines, that is for about 56 miles, there is an uninterrupted primeval forest, containing mahogany, rosewood, lignum vitae, ebony, cedar, &c.," and Capt. Downes says that mahogany was so plentiful that he used it for bridges.

I was given to understand that the directors were men of sound judgment and foresight, and capable of managing this most valuable property; if so, may I ask them the reason why they have not converted some of those valuable resources into money, seeing that they have a mode of transit for the timber? If we take Col. Strange's report to be correct (considering that the shareholders paid upwards of 1500s. for it, for the purpose of satisfying the directors), there



[illegible]



## FOREIGN MINES.

false theory that a live duke, an effete lord, a necessitous baronet, a dandy, a crippled general, a bankrupt colonel, a nominated M.P., a twenty-honourable alderman, or any such element, is necessary in the construction of a board of supervision where mercantile honour and experience alone should rule the selection. When shareholders will recognise and act in accordance with this necessity, then shall we have a better position in the columns of our "Investment Circular" than referring to past bubbles, in directing the attention of our clients, and many others whom we hope will rank with them, to legitimate and bona fide investments.

**From Mr. J. B. REYNOLDS.**—The very satisfactory change for the better, which continues, has been fully anticipated in my previous communications, and the rise in some of the large tin and copper mines during the week has been rapid and decided. It is, however, a fact that there are many large producing tin and copper mines of undoubted merit—as undoubted as any on the market—the shares in which have not yet been sought after, just because no market influence has been brought to bear in their favour. The investing public will make a fatal mistake if they put down as "bad" all stock which is not now advancing. "A word to the wise," &c. **GREAT WIRRAL**, of course, bids fair to become again the "Consols" of the mining market. The shares have had, from their lowest point, a considerable rise, and will go higher, beyond doubt, from the fact that there is not a large producing tin mine, under good management, which ought not now to be bought. The upward movement in copper also continues, and the important advance of 4s. per ton was established on Thursday; this materially affects Clifford Amalgamated, which for so long has been in the shade.

I predict a very favourable future for **WEST WIRRAL KITT**. True the shares have been very much depressed; this, however, cannot last. I have too much confidence in the eminent agents who have inspected it to believe that the stock will not rise for a moment. Moreover, about 1000 shares have been thrust on the market by gentlemen who, during the recent panic, have severely suffered; so much so, that stern necessity has obliged them to realise on all they have had. These shares have been quickly taken at the lowest rates at which they could be got by "investors," not by "speculators," whose "in-to-day and out-to-morrow" system is the worst in mining that ever was. It is worthy of record that out of eighteen Cornish shareholders only one has parted with a share, mark that out of eighteen Cornish shareholders only one has parted with a share, as far as I know. Amongst shares which have been selling at absurd prices, I take as an example **STRAIT PARK**. The public will do well to be on the watch, and would be doing better by taking time by the forelock. The directors of the **GOTHIC MINING COMPANY** (Limited) send out the dividend with an elaborate report from the board. The mine appears to be in a good position now, and to give promise of something very certain in the future. The reports issued are of a very satisfactory description. All this being the case, and the fact combined of there being no liability whatever on the stock—the shares being fully paid—renders them in the estimation of a certain class of investors highly desirable. This reminds me of the **DALE MINING COMPANY** (Limited). No company that was ever formed deserves success more than this. For cheerfulness, for hope, for confidence in the management, I have never known its equal. I am now told that the prospects are improving with them, and that the mine is nearly paying its way. A word of advice to the shareholders—take increased interest in the welfare of the property, and uphold the hands of the directors. There is no liability, as far as the shareholders are concerned, and the shares are at the very low price of 3s. 6d. **SOUTH CALLINGTON** looks very promising, and an early and, perhaps, an important change for the better. **COOK'S KITCHEN**, recommended by me last week very strongly, has advanced cent. per cent.

**From Mr. EDWARD BREWIS.**—All interested in the success of mining must be glad indeed to note the rapid improvement exhibited in the prices of leading British stocks. The return of notes held by provincial bankers, the disposition shown by the large capitalists of the country to get their accumulated resources employed to the best advantage, increase in the bullion at the Bank, and more confidence in commercial circles, have had, as it were, a magical effect. The two recent advances in the copper standard— $\frac{3}{4}$  last week and  $\frac{3}{4}$  this week—have naturally brought the shares of the companies producing the metal, and copper mines, to a high level. **CLIFFORD**, a few weeks ago marked 5½, are now 11½; **East Coast**, 8½, are 21; and **East Corn Brea**, which were 17s. 6d., are now up to 34s., a rise of considerably more than cent. per cent., showing that when a recovery does take place, that recovery is equal in its rapidity to the decline which it superseded. Of course, these are not all the mines worthy of an advance, but the trio represent a very large amount of business in themselves, from the fact of their having for the last few years been centres of gravitation. There are many neglected stocks which have not yet responded to the common general improvement, and which investors must remember not to buy a whistle too dear. **Clifton Moor**, after declining to 4½, have been active, and advanced to 6½. During the past six months many of the deep tin mines have been obliged to close, and the majority to struggle on with heavy calls; and it would be well for capitalists, great and small, to be careful in sinking their money too deeply in already too deep tin mines. The enormous amounts expended fruitlessly in deep mines during the past three years, which unmistakably mark the gradual fall of tin, would, if itself, have opened many virgin mines to the public, and which, if judiciously laid out, would have alike benefited the capitalist and labourer in *Calcutta*. We must all look forward to a great and united improvement in British mining industry, and which improvement, let us hope, will be as characteristic in its opposition as the "great fall" of 1865 and 1866. Let the dead Past bury its dead.

## THE DAGENHAM (THAMES) DOCK COMPANY.

The half-yearly general meeting of shareholders was held at the London Tavern, on Wednesday.

The Hon. HOWE BROWNE in the chair.

The report of the directors stated that in consequence of questions having arisen between the contractors and the board, which rendered it necessary to take a surrender of the contract, the directors regret that they are unable to report that much progress has been made with the works during the last three months. The terms of the surrender of their contract by Messrs. Rhye have been definitively arranged, under the advice of counsel for the company, with the limits of the contract granted by the company's engineer, and negotiations are now pending with other contractors for finishing the docks, and it is believed that these will be speedily brought to a satisfactory conclusion, and of which the shareholders shall be advised. Meanwhile two large store sheds are being erected by Messrs. Eassie and Co., which will shortly be finished, and it is expected that immediately thereafter the trade for which they were intended will be secured, and the jetty be brought into profitable use. The directors have the pleasure to announce that the Bill applied for in the last session of Parliament received the Royal Assent on May 18, by which the company are empowered to raise further capital to the amount of 300,000, (making 600,000, in all), with greatly enlarged powers, which must tend to the general prosperity of the undertaking. The state of the money market has hitherto prevented the directors from taking advantage of the new Act; it is, however, contemplated to invite further subscriptions from the public so soon as a favourable opportunity shall arise. An opinion, hostile to some clauses in the Dagenham Docks Railways Bill, having been expressed at the special meeting of the shareholders, held on June 25, an application to amend the Bill, as then proposed, was made, and for the removal of the Chairman of Committees in the House of Lords, but was rejected, and the Bill has in consequence been withdrawn in compliance with the resolution passed at the meeting referred to. The directors wish to state that the difficulties they have met with, and the delay in carrying out the works resulting therefrom, have in no degree lessened their confidence in the success of the undertaking, nor their belief that it will prove to be a sound and profitable investment.

The CHAIRMAN regretted that the board were unable to present a more encouraging report, but since he last had the honour of addressing the shareholders circumstances, over which the directors could have no possible control, had arisen in the commercial community that had operated very adversely against all descriptions of enterprise, and more particularly against this company. Relative to the first paragraph in the report, which alluded to the resignation of the contractor, the Chairman stated that the company should be best consulting the interests of the company, and at the same time express the opinion of the directors, if during the present juncture he did not go into that question. He did not wish in the absence of certain parties to refer to things that were of the past, and which might be hurtful to the feelings, particularly of the engineer and contractor, for whom he had the greatest respect. The present position of the company was one of transition, as at the present moment steps were being taken to transfer, or rather to enter into a new contract with other parties, and the very reason for believing and hoping that negotiations would result in the company completing the docks as originally intended. Several parties were willing to enter into contract upon certain terms, but as a forerunner the company must, of course, take steps to have a survey made of the works so far as completed, by which they would be enabled to submit to such parties a schedule of prices; the shareholders would be apprised of any arrangement that might be made. Almost the only feature of congratulation in the report was the fact of their having obtained the Bill, by which their powers as a company were greatly enlarged, and giving them certain conveniences as to drainage, which could not fail to be most advantageous. Had it not been for the opposition of one gentleman, whose land the company was compelled to purchase, the Bill would have been carried at an inconsiderable expense, but as it was it had been obtained for almost the fees paid to the two Houses of Parliament. He was confident that at some future time that Bill would be accepted as a very great boon to the Dagenham Dock Company. As regards the Bill promoted partly by this company and partly by other parties for the formation of a line of railway from Romford to the docks, and the establishment of a ferry to the other side of the river, and a short line on the Kentish side, that had been withdrawn on account of the introduction of certain clauses by Lord Redesdale. He then moved that the report be received and adopted. Mr. DEFFELL seconded the proposition.

The CHAIRMAN, replying to questions, stated that a circular had been sent to the shareholders, informing them that pending the state of transition the interest guaranteed by the contractor could not be paid, because it would be an illegal act, the payment devolving upon the contractor. As soon, however, as an arrangement was made with another contractor the interest already due would be forthcoming. As regards the resignation of Sir John Rennie, that had been caused entirely by personal matters, amongst which was his health, that had so completely broken down that he had been obliged to go abroad. His retirement from the company was voluntarily, but he (the Chairman) hoped that by-and-by Sir John Rennie would be able to resume his professional duties. As to an inspection of the property, the board would place every facility in their power to enable any shareholder to do so, and thus form his own opinion upon the property. As to the expenses of maintaining the company, they were reduced to a minimum, the board had not received any remuneration, nor did they intend to do so until the company was in a more healthy condition. (Hear, hear.) As to the amount required for completing the docks, including the past expenditure, it would not exceed 170,000.

The SECRETARY mentioned that capital had been issued to the extent of 204,500. The report was received and adopted unanimously.

Mr. CARTER and Mr. HARPER (accountants) were re-elected auditors.

The CHAIRMAN, in acknowledging a vote of thanks to the directors and himself, stated that the circumstances which had of late surrounded all descriptions of enterprise were most discouraging, but there was now reason to hope that there were brighter times before them. Indications were already visible in the horizon—and he trusted that in a short period the directors of the Dagenham Dock Company would meet their shareholders under altered and more favourable circumstances. (Hear, hear.) The proceedings then terminated.

**ST. JOHN DEL REY.**—The produce for the second division of July, 11 days, 16,498 oits., yield 8,621 oits. per ton; remittance, two months' produce, 106,817 oits.—1016 5/8 lbs. troy.

**EAST DEL REY.**—Treloar, July 31: "On receipt of your letter, I, in accordance with the instructions contained therein, took immediate steps for reducing, or closing, the establishment, until the course suggested can be advantageously carried out. Our mining operations are confined at present to two points—at the bottom of the mine, and at the eastern section. The lode in the former, during the last week or ten days, has been more intermixed with killas than for some months past, but as this has frequently occurred, the blasting of a few holes may again lay open the lode as large as ever. At the eastern section I hope in a few days time to have a mallet or two at work in sinking the shaft. The inclined plane and tramroad to the stamps are nearly completed, so as to answer the purpose for the time. Produce for the month, 768 oits.

**DON PEDRO NORTH DEL REY.**—Treloar, Aug. 1: At Maquine all is going on well. The produce cleared up is 4702 oits., but the total produce for the month will not be ascertained for some days. The new stamping-mill at Maquine is completed, but the house about it is not yet sufficiently advanced to prevent theft, and until it is the stamps will not be put to work.

**ANGLO-BRAZILIAN.**—Treloar, Aug. 1: The new stamps went to work on Friday last, July 27, and was christened the "Victoria Stamps." Nothing particular has occurred in the mine since my last. In the Buraco Seco the killas which appeared in the middle part still continues to encroach. The lode in the rise in the mine has undergone no alteration, still continuing well impregnated with pyrites. In the Mina Grande, near Davao's shaft, say about north east of the same, the lode appears to be improving during the last week. At Foster's shaft we have recommenced sinking in the footwall, for the purpose of putting down hand-pumps.

**SAN PEDRO DEL MONTE.**—W. H. Chynoweth, July 25: Santa Elena Shaft: The levels of San Miguel and San Carlos have been driven without interruption, but no important change has taken place since my last report, although the ends are more promising in appearance. The winze of San José (see my letter of Jan. 25) is full of water, and we shall not be able to follow down the ore until the rains cease, as the level of San Carlos has advanced beyond the perpendicular line of the winze; we expected it would have been driven to this. We shall also sink on the ores in the Santa Rita winze if no discovery be soon made in the level of San Miguel below, which has also passed the perpendicular line of this winze. It may be that the ore from both these winzes has suddenly dipped into the unexplored vein east, to intersect which we are driving a cross-cut from the bottom of the shaft, having observed whilst sinking that the rich branches left the lode almost flat, as explained in my letter of the 25th ult. The cross-cut has been driven easterly 5½ varas, and apparently the new lode is not far distant, as branches of spar, intermixed with mundle, are running across the end. San Pedro Adit: The end still continues to be heavily charged with iron pyrites. The winze (San Francisco) has been sunk 4 varas, and rich ores accompany the lode, the ore part of which has widened considerably going down, being at this moment 2 ft. wide. The prospects at this point are highly flattering, as in the adit we passed through 8 varas of solid ore, and if it continues, as it promises, in depth, even only to the San Enrique level, 30 varas below, the produce from this ore ground which will have to be stored away will yield sufficient silver to pay off the whole capital expended on the mines. That the ore will not fail in depth may be reasonably expected from the fact that last week the San Enrique level (now driven 36 varas) commenced producing stones of ore containing sulphuret of silver, precisely similar to those discovered in the San Pedro adit previous to intersecting the cross-course, which we also expect to pass through in this level before we strike the rich course of ore we are now sinking in the San Francisco winze. San Guillermo Shaft: The opening ground for a plat, and the erection of a windlass at the top of the shaft, and the erection of a pump, are all going on well, and raising the collar of the shaft, have retarded the sinking during the month, which was resumed yesterday. The San Lorenzo level, driving north, continues poor. San Juan adit has been driven 6½ varas during the month, and the change that has taken place in the nature of the ground indicates an approach to ores, as stones containing spots of sulphuret of silver have been met with.

Dressing: Ores are now being selected and prepared for the smelting furnaces, which we purpose erecting at the end of the rainy season, in October; the intermediate period will afford us time to increase our stock of ore, and if the rains continue as they promise from the San Francisco winze, I can only roughly calculate that our first bars of silver will be cast about the end of the year. The gentleman referred to in my letter of last month, who offered his services to conduct the smelting process, has met with an engagement elsewhere, but I hope to procure the services of an able person when required. I have already two practical smelters here, who are temporarily occupied in dressing the ores until the furnaces are erected.—Horse Engine: The patterns for the castings are nearly completed, and will be sent to the city of Mexico next week. The erection of this simple and economical machinery will supersede the necessity of bringing water a distance of two leagues, and, moreover, prevent the enormous expenditure which would be caused by erecting a water-wheel to force the water a sufficient height to flow in the water-course proposed by our former mine captain, which we are persuaded is impracticable; and, as the water-course would for at least three-fourths of the distance have to be opened through alluvial soil, the stream by the time it reached the mines would be very inferior to the quantity required for driving a water-wheel, consequently at the end of March next work was suspended, and the outlay had increased to £4500. Towards the erection of reduction works on a large scale nothing has yet been done, as I consider it would be imprudent to do so until the extraction of ores becomes more formal, and a large stock acquired.

**FRONTINO AND BOLIVIA (South America) GOLD MINING COMPANY.**—Capt. Treloar's report upon the Bolivia Mines (July 15) is as follows:—We beg to hand you the report and measurement of work done underground. 1. The cross-cut driving south has been driven 1 fm. 1 ft., and have now turned to drive on the lode east and west from this station.—2. The end driving on the course of the lode east from the above station has been driven 1 fm. 3 ft.; the lode at this station is 1 ft. 3 in. wide.—3. The level driving west from the above cross-cut on the lode was only commenced yesterday, so the ground driven is nothing to measure, and the lode is 18 in. wide, and has a good appearance.—4. The stopes over this level and above the cross-cut have been stopped 6 fms. 3 ft.; the lode in these stopes is 2 ft. wide, and occasionally gold is visible to the eye in some of the stones.—5. The end driving west from the eastern winze, to communicate with the level driving east from the cross-cut, has been driven 3 fms. 3 feet; the lode at this station is about 9 inches wide, and gold is visible to the eye in many of the stones.—6. The end driving east from the above winze has been driven 4 fathoms; the lode at this place is about 8 inches wide, and to all appearance gives good work for the stamps.—7. The end driving north from the north side of the valley, or "cabecera," has been driven 1 fathom 5 feet, but as yet have not met with either lode or branch, and the ground much harder than last month.—8. We have traced the lode over the mountain, down to the "canada," or valley east of the present workings, about 150 fathoms, where we have commenced opening on it by making an open cut in the side of the hill, as low down the side of the hill, and close to the water's edge, as it was safe, and allow for the rise of water in the valley during the wet season, as the heavy rains increase the water in the valleys so much as to carry everything before it. This level is 7 fathoms long, 10 feet broad, and about 8 feet high; we then commenced to drive a level west on the lode, which is small, and at present divided into two branches, varying from 4 to 6 inches wide each, but show fair samples of gold when washed in this batea. This level continued west will come in under our present workings in the mine, and come about 16 fathoms perpendicular under our present cross-cut, which will leave us about 25 fathoms of backs on the lode.—9. We have an open cutting, and a level commenced to drive west on the lode, 7 fathoms perpendicular measurement above the level in No. 8. We have also commenced driving a level east on the lode, which is small, and gives gold and good-looking ore for the stamps; this level I intend to communicate with the level driving east from the eastern winze; the distance between these two levels is about 80 fms.—10. We can raise but a small quantity of ore at present from the mine, the lode being so small, and the small length of lode laid open. After we effect a communication of the two ends, one driving east from the cross-cut, the other west from the eastern winze, we shall then be enabled to increase our quantity of ore raising, by taking away back stopes.—11. The mineral raised during the month, as per calculation, is 60 tons, making a total of 100 tons for the month, but having no convenient place for drawing the stamps to work, but the carpenter goes on very slow. We started the stamps (12 heads) yesterday, although the carpenter has a little more to do in putting down the tables for washing the sand. After taken from the blanket, it will have made a hard cover for itself with some hard stones I had collected for that purpose. Our prospects are looking better for the month of August.

La Salada: In No. 1 stop, in the bottom adit level, east of Russell's shaft, the ground stopped is 3 fms. 4 ft. 6 in., at \$26 per fm., by four men; the lode is about 1 ft. wide to all appearance, and produce from the stamps the same as last month; no working this month, not having proper convenience for drawing the stuff. In No. 2 stop, in the same bottom, the ground stopped 2 fms. 3 ft., by two men, at \$27 per fm., now stopping at the same price, by two men; the lode is 6 ft. wide, without alteration. In No. 1 winze sinking below the adit level, the ground sunk 1 fm. 1 ft. 2 in., at \$40 per fm., by two men; unable to sink deeper at this moment, in consequence of the water having increased so much, and it does not find its way through the lode to the pumps in Crosskill's shaft as fast as we could sink, therefore we have thought it advisable to suspend sinking for a month, when we hope to be again able to sink, as in all probability the water will be drained by that time, and again allow us to sink another month; the lode is 6 ft. wide, and no alteration to notice since last report. In No. 3 stop, west of this winze, the ground stopped is 2 fms. 3 ft., at \$22 per fm., by four men; the lode is about 5 ft. wide, giving fair mineral for the stamps; we were only able to work this station a part of the month, in consequence of the air becoming so bad that the men could not keep light. In No. 3 winze, in the bottom adit level, West Russell's shaft, the ground sunk is 4 ft., at \$30 per fm., by two men; the lode is 3 ft. 6 in. wide, and produces fair mineral for the stamps, but we have had a small quantity being constantly drawn out of the bottom of the mine, in consequence of bad air. In the rise spoken of in the back of the adit level last month we have risen 4 fms. 3 ft., at \$11 per fm.; this was set to two men, but worked by four; the lode is 3 ft. 6 in. wide, and the ore when passed through the stamps gave us as much gold as the ore from any other part of the mine. From the above-mentioned point we commenced to rise perpendicular in the country, as it would take too long to rise on the lode to surface, and being so much in want of air and communication to ventilate the mine: this was set to two men, but worked by four. We have as well made a communication to surface, over No. 1 winze, which we intend to make an underlie winze-shaft, by putting a railroad on the underlie of the lode, and drawing the stuff with a horse-whim on a skip instead of doing it by hand, which is far too expensive; this little bargain measures 2 fms. 3 ft.; set at \$8 per fm. In the adit level, East Vander-Byls shaft, the ground driven is 2 fms. 1 ft. 6 in., at \$18 per fm.; now let at \$20 per fm., by two men; lode about 2 ft. 6 in. wide, produces gold when stamped. In stopping the lode from the side and back of this level the ground taken away measured 4 fms. 2 ft. 6 in., at \$17 per fm., by two men; now stopping at the same price by the same men. No. 1 shallow level, East Vander-Byls shaft, driven 2 fms. 2 ft. 6 in., at \$16 per fm., by two men; now driving at the same price by the same men; we do not carry all the lode in driving the level, but afterwards take all the lode down from the side and the back by a pair of men stopping; the lode here holds out promising, and give us the best ore we are raising in this mine. The winze in the bottom of this level is sunk 1 fathom 2 feet 6 inches, at \$22 per fathom, of which we have taken down all the lode, which is about 4 feet wide, giving fair mineral for

the stamps. We have sunk the same winze under the lode 2 fms 5 ft. 6 in., by three men, at \$12 per fm.; now suspended in consequence of the air having failed. Although this winze has been commenced to sink, not more than 2 fms. distance, for a communication to surface, we have now commenced to rise from the level below to effect a communication, at \$12 per fathom, by four men. This, when completed, will give us two new stations to stop east and west of the winze. The rise in back of the shallow level has been holed to surface; ground risen 3½ fms., at \$8 per fathom, by two men—now completed. The bottom of this level is stopped 8 fms. 3 ft. 4 in. by the side of the lode, at \$8 per fathom, by three men. We have merely taken away a small branch under the lode, but intend to take away the large lode when I can get a back stop, which will enable us to attack it in a far more economical manner than stopping under-hand. These under-hand stopes require such a large amount of timber. Timber is far more expensive here than in England, although we are surrounded by a dense forest. Crosskill's engine-shaft has been sunk and timbered down to the depth of 2 fms. 2 ft. 6 in. by the side of the lode, at \$8 per fathom, by four men; we do not know the width, having only taken away a little of the north part of the lode, being so close to the shaft, which has been poor, but we are of opinion the best part of the lode stands to the south of us. By the end of next month this will be proved. The western level, from Crosskill's shaft, has been driven 1 fm. 4 ft. by the English miners, and 1 fm. 3 ft., at \$30 per fathom, by miners; the lode is small, and by no means rich. This station is suspended at the present time, it having been found impossible to draw the stuff from both the ends until we have got the horse-whim completed, which will be in a few days. The winze-shaft, spoken of last month, midway between Crosskill's shaft and the entrance of the adit east, in future will appear in our reports under the name of Richelieu's shaft, which has been sunk 3 fms., but has been obliged to be suspended, in consequence of so much water from the heavy rains, and the ground letting down so much water. No doubt when once we get dry weather all this water will go to the pumps at Crosskill's shaft, and filter through the lode.—P.S. July 16, 1866: The rise from the back of the adit level has been holed to surface. Now we have again got good air and plenty of ventilation, and can again work in our bottom stopes, I think, from present appearance, that next month we shall be able to keep our stamps in full work with 24 heads. **FRONTINO MINE.**—Capt. John Edwards, July 11: The main lode in the 20 fm. level, driving east from engine-shaft, is 2½ ft. wide, yielding 5 tons of gold ore per fathom. The lode in this level, driving west from engine-shaft, is 6 inches wide, producing a little gold; here we expect shortly to meet with the shoot of mineral gone down in the bottom of the 10 fm. level. We have put two of the Englishmen to cut a plat in the 20 fm. level, in order to sink the engine-shaft below that level as soon as possible. The 10 fm. level end, west from engine-shaft, has not been driven during the past month, the men have been engaged in clearing the said level, which is now completed, and shall set the end to drive next week. The lode in the rise in the back of this level is 18 inches wide, producing 4 tons of iron pyrites per fathom. The lode in the stop in the bottom of the main level, west from engine-shaft, is 2½ feet wide, producing 6 tons per fathom. The lode in the stop in the back of this level is 2 feet wide, yielding 6 tons per fathom. We have two Englishmen and six native miners engaged cutting ground in the back of this level for the new drawing machine, which is progressing as fast as possible. San Diego lode, in No. 2 level, driving east, is 14 inches wide, yielding good work for gold. We have commenced to clear No. 1 level on this lode; the ore from this lode we intend stamping at the Caledonian mill for the present. The Gurupero lode, in No. 1 level, driving east, is 1 foot wide, yielding 3 tons of iron pyrites per fathom; we believe the ore to be rich for gold. The lode in No. 2 level, driving east, is 8 inches wide, producing 1½ ton per fathom. We shall commence to clear No. 3 level in the course of a few days. We have opened on the back of this lode, west from No. 1 level, 20 fms., and as far as seen it looks very promising for the production of gold. The San Juan lode, in No. 1 level, driving east, is 6 feet wide, producing about 6 tons of gold quartz per fathom. We have discovered this on a level about 12 fms. above the aforesaid level, where it is 2½ feet wide, composed of mundle and quartz; here we purpose to drive No. 2 level in the course of a few days. We are obliged to suspend operations on the San Pedro lode for want of miners. The same remark applies to stream mining for want of labourers. In consequence of the samples from the ends and stopes throughout the mine not having been assayed, we could not give the value of the lodes or the yield of gold per ton, but hope to do so in our next report.—Reduction Department: We have amalgamated 1½ cubic foot of sand, and find the yield of gold to be 70 grains, and have tried 1½ cubic foot of the same quality sands by the former process, and find the yield of gold to be only 19 grains, showing a loss of gold by the former mode of dressing upwards of 70 per cent. The loss of quicksilver per cubic foot is 1¼ oz., or equal to 1 lb. 9 ozs. per ton of sands, which is very little. We recommend the immediate erection of the necessary machinery for the amalgamation process, and to abandon the present mode at once.

**BRITANNY.**—J. Nance, Aug. 25: Tremous Mine: We have commenced driving both north and south from the bottom of the engine-shaft, in the 44 fm. level. The lode in the north is large, and contains a leader of solid ore 9 inches wide, and in the south end it contains a branch of ore 3 inches wide, of good quality. The lode in the 34 fm. level end, driving north, does not contain so much ore as it did at the point reported on a week ago. The lode in the present end is at a splice. In a little further driving we expect it will again be found larger and better in quality.

**CAPULA.**—Capt. Paul, July 26: The lode in the Esperanza end is still looking well, producing some very rich metal. Some stones I had assayed produced 967 mares per monton. The ground is very hard, and they only drive ¾ vara weekly. I rather think this metal will continue under the old workings of Cigüena. The rise is now 29 varas above the Esperanza level, the ground is more favourable, the metal part is not so wide, but still producing ore of fair quality. The lode in the south end, after the communication is made with La Bomba shaft we can more than double the extraction by stopping both ends of the rise. The ground is easy in La Bomba shaft, and they sink 1½ vara weekly. The lode is unproductive at present. I expect to make the communication in about two months. The sinking of the engine-shaft was resumed on the 28th ult. The ground is uncommonly hard at present. We are daily expecting another lode in the north side, in which the ground is more favourable. The branch on which we had the ore is now to the south of the shaft. We are still able to keep the water with a 7-in. lift. Should the weather clear, I trust we shall be able to take out part, if not the whole, of the water, but should this season prove as wet as it did last year, I am afraid we shall be obliged to stop the engine for want of fodder for the horses, which is now scarce and dear. The winzes to the east and west of shaft on the different lodes are nearly dry, and the water has gone from the Esperanza level. Torta No. 9 will be washed this week; the assay was 32 mares per monton (192 ozs. to the ton). The grinding in San Pascual hacienda is very rough, consequently they cannot give good results. They have only one small arrastre (mill for grinding) of high ley. In the bottom of San Rafael level the stopes have disclosed a great deal of native silver, it ought to be ground in arrastres, and the silver taken up according to the guanajato system. We have sent in 63 cargas for torto No. 10, which we intended to make 10 montons. As it is daily raining we cannot convey it to the hacienda. We have over 100 cargas at the mine ready for transmission. We have agreed to send one torto to Don Martiá Vilamil, San Francisco hacienda, from whom I expect better results at a much less cost.

**CENTRAL AMERICAN.**—Mr. Henry Trehear (Alotepoque, July 16) says:—That although he cannot report any remarkable change in the mines since the date of last advice, he has much pleasure in observing that a slow and steady improvement is noticeable, both in San Carlos and San Pantaleon, and that the various workings are being energetically conducted, and with the strictest regard to economy. With respect to San Pantaleon, he remarks that should the lode in Guadalupe level continue in its present productive and promising condition it will soon lead to increased returns of ore. The stopes east and west of Triguero's winze, which are considerably in advance of the Guadalupe end, have yielded during the last fortnight several tons of moderately good ore; the lode is still producing several hundredweights per vara, and promises well for the ground standing eastward, and under San Antonio deep adit level. Quejada's lode has been holed to the Guadalupe level, and the end has been 5 varas ahead of the winze a new stop will be at once started above that level. The lode found east of No. 3 cross-course, and north of William's shaft, has been driven on 4½ fms.; it is 1 ft. wide, consisting of gossan and soft porphyry, has a kindly appearance, but no ore has been met with, and the men are now sinking on it. In San Carlos Mine the stopes in the back of San Rafael level have lately improved, not so much in quantity as in the quality of the ore, which is associated with less iron pyrites, and the soft brown argilliferous blende now being broken down of high ley. In the bottom of San Rafael level the stopes have disclosed a little value; the lode not looking so well as for some time past. In the back of La Esperanza level the stopes continue to yield the usual quantity of ore, but as the stopes lengthen in rising between the two cross-courses an increase in the returns from this place is naturally expected. The lode in Mistin's rise, over Esperanza level, is looking better, producing some good stones of blende and gossan, rich in silver. Cerna's deep adit, to come in 20 fms. under La Esperanza level, is steadily advancing; the ground is a little harder. In La Esperanza level, driving west from the eastern slope of the hill, and from the tip of the broken and disordered ground, a change in the formation has recently taken place, and it is hoped that the lode will soon be found in a well-defined and regular form. The explorations on the new lode found at a short distance north of San Carlos have, unfortunately, been interrupted by a slide, and the vein has evidently been heaved. Some good stones of ore have been broken from this branch, and the composition and character of the vein still is so encouraging that steps will be taken to re-discover the lode. Of Atitula Mine no improvement is reported. The hacienda is in full operation, with the calchens and barrels on June ore and fine dust. The June returns were—From San Pantaleon, 19 tons 10 cwt.; ley per ton, 42½ ozs., producing 1950 ozs.; 49 tons 10 cwt.; average, 58½ ozs. per ton, producing 2778½ ozs.

**BOTALACK.**—This mine seems by no means to lessen in its attractiveness to tourists and visitors, who are not at all satisfied generally with an inspection of the works on the surface, and which are generally acknowledged to be of the most interesting character, but daily the agents are called upon to display to the curious the riches of the Crown. The submarine trip by the diagonal shaft and its tramroad beneath the Atlantic appears greatly to delight those who indulge in the marvellous. Amongst recent visitors we notice the names of Sir Benjamin and Lady Brodie; Mr. C. D. Bevan, and the Misses Somerset; Rev. T. B. and Mrs. Coulson; Miss Alexander, and Mr. J. Maddock, &c. We are glad to hear the latest report from Botallack is that the copper lode in the 225 fm. level north still maintains its value, and is estimated as worth 1007 per fathom, and also that a portion of the lode in the end is rich for tin. The 235 fm. level is sunk in the diagonal, and is not more than 5 fms. distant from the rich lode of copper in the 225 fm. level.—Cornish Telegraph.

**HOLLOWAY'S OINTMENT AND PILLS—HEARTY AND HEALTHY.**—The experience of thousands, both at home and abroad, has amply demonstrated the power possessed by these healing and purifying remedies of removing cutaneous eruptions, repairing ulcerations, and relieving fistulas and abscesses. These hidden evils frequently rob life of every comfort, through the reluctance of the sufferer to expose his infirmity. Holloway's ointment supercedes such dread publicity by placing within the reach of all plain instructions for curing themselves, without any danger, and without the necessity of mentioning their malady to anyone. The ointment and pills will likewise cure bad legs, scabby rashes, and those blemishes which arise from the abuse of mercury, and from the use of other deleterious drugs.



## BRITISH MINES.







plied to redeem the notes which may be issued for the first construction of the works. We are quite satisfied that the more this interesting problem is examined into the more practicable it will appear, and we urgently advise all our metropolitan authorities and provincial municipalities likewise to examine into its details, which will amply repay them. We shall take further opportunities to allude to it again, and advise all to read the pamphlet through carefully, and examine for themselves. It would also be invaluable for all public works in our colonies—India and abroad, and the sooner it is reduced to practice the better.

#### MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**GREAT SOUTH TOLGUS.**—It is reported that an important discovery has been made in this mine by a tributor, which it is to be hoped will put the adventurers in heart to carry on the workings with briskness. Great South Tolgus has been recently condemned by those panic-stricken prophets who assert that the glory of Cornwall has departed.

**AT ROSEWARNE CONSOLS.** the winze sinking below the 80, east of Ellen's shaft, has improved to 107. per fm.; this is a very important feature, as it confirms the previous reports that the run of ore ground passed through in the upper levels would hold down, therefore from the 90 and 100 are under this run a large mass of rich ore ground will be laid open.

The Chiverton district is likely soon to have an addition to its list of productive mines, as the recent news from EAST CHIVERTON adds to the belief that a very important discovery will shortly be made. This property seems deserving of attention, and shareholders will, there is little doubt, be rewarded for their patience and outlay. The manner in which the operations have been carried on reflect great credit on the management.

**CHIVERTON.**—The lode in the 50 east, recently cut, is now worth from 307. to 407. per fathom. This mine is quite as promising as West Chiverton at the depth.

**THE HELSTONE TIN MINES.**—Owing to the rise in the price of tin, the tin mines in this, the greatest tin district in Cornwall, is likely to be greatly benefited, especially those tin mines producing large quantities of tin, such as Great Wheal Vor, East Wheal Lovell, Trumpet Consols, Great Work Mines, &c., the shares in which I find are again in demand, and no doubt, will command greater attention, as the increasing prices of tin will increase the profits.

**EAST WHEEL LOVELL.**—This mine continues to look well. There is a cross-cut in the 60, from the north lode now being driven, which, in about 4 fathoms more driving will intersect the rich south lode. The shaft now sinking below the 40 (immediately above where the lode will be cut in the 60), is worth 407. per fathom. In a few weeks, therefore, an important discovery is expected. On the north lode, in the 60, at the bottom of the shaft, the lode is worth 357. per fathom. The continued rise in the price of tin will greatly benefit this mine.

**THE EAST MOOR SLATE QUARRY (Devon)** has been taken up by an influential proprietor, and will be worked to a successful issue. Nothing can be more fair than the terms on which the shares have been allotted. There is no premium or free shares to act as a drag on the market to the legitimate investor; each and all are placed on an equal footing, so that the returns from the property will, it is believed, soon put it into a paying state. Judging from the reports, and more particularly that of Capt. Henry James, of Redruth, no two opinions can exist about the undertaking proving successful.

**PENHALE AND LOMAX.**—Great progress is being made at these mines in working, and several valuable pitches will be set in a short time. The last monthly sampling of the Penhale Mine alone during the late working was 45 tons of rich silver-lead. The consolidation of Lomax is a valuable acquisition.

**CALDBECK FELS.**—Capt. H. James, of Redruth, in a letter to a shareholder, says: "I never saw better-looking lead lodes in any part of the world than at Caldbeck Fels, and if the lodes turn from the carbonates into the blue lead the Caldbeck will be the greatest lead mining property in England, and I believe the chances are 90 per cent. in its favour."

**OTEA COPPER MINING COMPANY.**—The whole of the 995 forfeited shares have been taken up. Messrs. W. C. Buller and Mr. Thomas Staunton have joined the board. The next mail is expected to bring news of the machinery being at work, and by this time a cargo of good copper ore is likely to be ready for shipment.

**BRADDA MINE.**—The whole of the 12,000 shares are subscribed for. After paying for the mine, there is an available balance of £5007., which will enable the works to be prosecuted vigorously. The prospects of the mine (which is in the Isle of Man) are exceedingly good, as will be seen by the reports in this day's Journal.

**GOTHIC MINE.**—An official visit was paid by the managing directors to the Gothic Mine several days previous to Aug. 19, and extracts of reports and opinions of the prospects of the mine will be found in another part of the Journal. The guaranteed interest was forwarded to the shareholders on Aug. 18, and it is expected next year the dividends will exceed the present ones. During the exceedingly heavy times that have clouded the financial atmosphere of this country, it is very encouraging to find that a large district of mines like Cardiganshire has passed through the furnace unscathed, and that the prospects there now are better than when the financial crisis began. If the community who make the support of mines their business had invested entirely in Cornwall we should have had but small reason to congratulate ourselves upon the present position of mining; but people wisely divided their adventures, and the result is a large margin of valuable salvage from the almost general wreck. It is not fair to take the present prices of shares in Cardiganshire as the measure of the interest paid on the capital, because the original outlay was not one-fifth part of the selling value of these mines at the present time. So that if these mines are now paying 10 per cent. per annum on the present ruling prices, which no doubt they are on the average, it would be equal to fully 50 per cent. on the original investment; consequently, those who have had their money in this property have received 50 per cent. through the ordeal that has tried and winnowed the stock of the country so severely, and now hold the more valuable share property in the market. Time was when people shook their heads if the mines of Cardiganshire were mentioned, and pointed to Cornwall as the only rock of safety, but they have erred. Let us not condemn untried ground, but learn to appreciate whatever may be found good in one county as well as another.

**GREAT RETALLACK.**—The prospects here continue very encouraging. The ground in the shaft is very congenial for silver-lead, and improves in appearance as they go deeper. The lode is expected to be found in the shaft at a little more depth. During the very depressing times a considerable number of shares were relinquished, and they will have to be sold for the benefit of the remaining shareholders, who have courageously held on, confident in the ultimate success of the mine. With blends ample sufficient to pay costs, and such good prospects for lead, shares must soon treble their present price.

**COOK'S KITCHEN.**—The winze below the 258 fm. level is worth 247. per fathom, for 6 ft. wide, and the length of the winze (3 feet): the lode here is 8 ft. wide. In the 258 the lode, for the part driven on (9 ft.), is worth 287. per fathom. No north or south wall seen. The quantity of tin sold during the past quarter has been close on 70 tons. A little further rise in the price of tin, and this mine will soon resume its former profitable position. This is no speculation, but may be considered a certainty if tin improves in price. The district is undeniable—Tincroft on one hand, and Dolcoath on the other.

**THE IRON TRADE.**—The quantity of iron ore raised in the United Kingdom during 1865 amounted to 9,910,045 tons 17 cwt., of the value of 3,324,804. 13s. 2d. We imported 76,977 tons of foreign iron ore, of the Custom House value of 72,4917. There were 656 furnaces in blast, and the pig-iron produced was in England, 2,738,867 tons; in Wales, 916,909 tons; and in Scotland, 1,163,478 tons—4,819,254 tons, which estimated at the mean average cost at the place of production would have the value of 12,048,1337. The mean prices ruling during the year were for Welsh pig, 47. 15s. 6d., the highest price was 57s., and lowest 47. 10s.; for Scotch pig, 27. 19s., the highest price was 37s. 4s., and the lowest 27. 13s.; and for Cleveland pig, 27. 9s. 6d., the price not having varied throughout the year.

**WHO INVENTED THE STEAM-HAMMER?**—Although Patricroft was undoubtedly the birthplace of the steam-hammer in its present compact and manageable form, it is now conclusively proved (by the testimony of Mr. Gaskell and Dr. W. Fairbairn), that Mr. Smiles was not justified in giving, as he has done in his "Industrial Biography," the credit of its invention to Mr. Nasmyth. The first practically useful hammer made in England was produced at the works of Messrs. Nasmyth, Gaskell, and Co., at Patricroft, but Mr. Nasmyth's hammer was similar to, and no advance upon, the hammers of James Watt and Deverell, patented nearly half a century previously, until the self-acting motion was designed and applied by Mr. Robert Wilson, then manager to the firm, and now managing partner in the works at Patricroft. From the time of Mr. Wilson's invention being applied, the steam-hammer has become a necessity in every engineering workshop, its introduction marking a new era in the history of mechanical progress. A detailed account of the early history of the steam-hammer, as embodied in an interesting lecture by T. S. Rowlandson, is published in another column of this day's Journal.

**AUSTRALIAN GOLD.**—The value of the gold imported from the Australian colonies appears to have revived this year, having amounted, in the six months ending June 30, to 2,616,4667., as compared with 1,289,1087. in the corresponding period of 1865, and 1,816,8977. in the corresponding period of 1864. The value of the Australian gold imported in the whole of 1865 was 5,051,1707.; in 1864, 2,656,9717.; in 1863, 5,995,3687.; in 1862, 6,704,7537.; in 1861, 6,331,2257.; in 1860, 6,719,0007.; in 1859, 8,624,5617.; and in 1858, 9,064,7637. This year's imports of Australian gold thus promise to attain a respectable total. In New South Wales especially we observe that the yield of gold has been increasing of late. In the last 10 years the aggregate value of the gold imported from Australia has been about 60,000,0007.—a great fact.

**GOLD IN NEW BRUNSWICK.**—Extract of a letter, dated Aug. 13: "There is some excitement here just now respecting an alleged discovery of gold near the Grand Falls, about 130 miles above here. A few weeks will show whether it is a thing of importance."

\* \* A pressure on our space compels us reluctantly to postpone the publication of "Ex Officio's" letter, in reply to Mr. Davies, on the Dyffryn Mines.

\* \* With the Mining Journal of this week a SUPPLEMENTAL SHEET is given, which contains several papers read at the British Association for the Advancement of Science—Steel Making: Mr. Mushet and Mr. Bessemer—the Coal Question: Sir R. Murchison—Coal Mining in Nottingham—Mr. E. Hedley on the Sinking of the Annesley Colliery—Steam-Boilers: Mr. H. Dircks on Steam-Boiler Investigation—Carrett, Marshall, and Co.'s Self-Acting Hydraulic Coal-Cutting Machine (illustrated)—Collecting Gases from Blast-Furnaces—the Statistical Returns of Copper Mining—the Discussion on Mr. George Addenbrooke's paper on the Utilisation of Blast-Furnace Gases, &c.

#### The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Aug. 31, 1866.

COPPER.		IRON.	
Best selected . . . p. ton	88 0 0	Bars Welsh, in London	6 15 0
Tough cake & tile . . .	86 0 0	Ditto, to arrive . . .	6 15 0
Burra Burra . . . . .	90 0 0-91 0 0	Nail rods . . . . .	7 10 0
Copper wire . . . p. lb.	0 11 3/4	Stafds. in London	8 10 0
Do. tubes . . . . .	0 12 1/2	Bars ditto . . . . .	8 10 0
Sheath. & bolts p. ton	91 0 0	Hoops ditto . . . . .	9 5 0
Bottoms . . . . .	96 0 0	Sheets, single . . . . .	10 0 0
Old (Exchange) . . .	77 0 0	Pig No. 1, in Wales . .	4 5 0
		Refined metal, ditto . .	4 0 0
		Bars, common ditto . .	6 0 0
		Do. mch. Tynes Tees	7 10 0
		Do., railway, in Wales	15 0 0
		Do., Swed. in London	15 0 0
		To arrive . . . . .	11 0 0
		Pig, No. 1, in Clyde . .	2 13 0
		Do. f.o.b. Tynes Tees	2 9 0
		Do. Nos. 3, 4, f.o.b. do.	2 6 0
		Railway chairs . . . .	5 10 0
		" spikes . . . . .	11 0 0
		Indian Charcoal Pigs,	
		in London p. ton . . .	7 0 0
		STEEL.	
		Swed., in kegs (rolled) .	14 0 0
		" (hammered) . . . .	16 0 0
		Ditto, in fagots . . . .	16 10 0
		English, spring . . . .	19 0 0
		QUICKSILVER (p. bottle)	7 0 0
		LEAD.	
		English Pig, com. . . .	20 0 0
		" ordinary soft . . . .	20 0 0
		Ditto (WB) . . . . .	22 0 0
		Ditto, sheet . . . . .	21 0 0
		Ditto, red lead . . . .	23 10 0
		Ditto, white . . . . .	27 0 0
		Ditto, patent shot . . .	23 15 0
		Spanish . . . . .	19 5 0

\* At the works, 1s. to 1s. 6d. per box less.

**REMARKS.**—Another reduction in the Bank rate of discount was announced by the directors of the Bank of England on Thursday, and it now stands at 6 per cent. This movement will give an additional impetus to the general improvement which is taking place in the Metal Market, and cause an increase in the already extended business which is now arising. Confidence being now restored, we may look for a return to that activity in commercial affairs which has been so long unfortunately interrupted, and the want of which had cast so much depression and gloom over the metal trade, now, we trust, happily removed. We may, therefore, anticipate a much brighter prospect for the future, which it is to be hoped will continue for a lengthened period. During the past week advances have been made in the official prices of two metals, and generally prices are looking up. The amount of actual business, however, has not been so very extensive, as holders of metals are indisposed to part with their parcels at present, looking for still better prices; and as a good deal was bought at prices much higher than have been lately ruling, and have been held for some time, operators are disinclined to sell until they can come out advantageously, and this they expect to do by waiting a little longer. As yet hardly sufficient time has elapsed for the intelligence of the improved state of affairs here to reach some of our customers abroad, but there is little doubt that when it does so orders will be sent over in considerable numbers, which will lead to increased activity in the metal trade.

**COPPER.**—The improved condition of the market for this metal enabled the smelters to announce on Monday an advance of 57. per ton, making present prices—Manufactured, 917.; best selected, 897.; and tough cake, tile, and ingot, 867. The market continued very firm at these advanced prices, especially for raw, and the smelters did not readily take orders at official rates, but latterly they have declined altogether selling at the above prices, so that there is every probability of another advance being announced ere long. Foreign has also advanced, and business has been done in Burra at 907. to 917., and Wallaroo at 897.; holders of Chilean slab are asking 807.

**YELLOW METAL.**—Simultaneously with copper, an advance of 04d. per lb. has been declared, making the present price 84d. per lb.

**IRON.**—In Staffordshire there is a decidedly more hopeful feeling, and in some cases additional orders have been received during the week, but the actual improvement has not yet quite come up to anticipations. Pig-iron is firmer by at least 2s. 6d. per ton. In Welsh operations at many of the works are far from active, but the trade is better than it was a week since. Most firms are anxiously looking out for the placing of home contracts, a few of which have come to hand, and there is now every probability of the demand on home account improving. During the past week the enquiry from the United States has been a little better. The Mexican demand has received a check, and transactions are dull. Business with the markets of Northern and Southern Europe is more encouraging. For pig-iron there is a slightly improved enquiry. In Swedish iron the market remains the same as last week. In Scotch pig-iron a rather better feeling has pervaded the market during the week, and a moderate business has been done. Prices have fluctuated but slightly, but upon the whole have rather improved, the last price received from Glasgow being 53s. 6d. cash.

**LEAD.**—An improvement has taken place in prices, and a very fair business is now doing; the present quotations are 207. to 207. 5s. for common English pig, 207. 7s. 6d. for L.B., and 222. 10s. for W.B.

**TIN.**—On Wednesday an advance of 37. per ton was announced by the smelters of English, making present prices 887. for blocks, 897. for bars, and 917. for refined. The market for Straits has continued to improve, and business of some extent has been done at 847. cash and 857. prompt one month. The Dutch Trading Company have announced that their half-yearly sale of Banca will be held on Sept. 28, when 110,000 slabs will be brought forward, making with the March sale, 220,000 slabs for the year. The company's next sale will be held in March, 1867. The last price paid in Holland was 48 fls., equal to 857. here.

**SPELTER.**—During the last day or two business has been much more active, and an improvement in prices has occurred. Several hundred tons have changed hands at 197. 15s. to 207. for parcels on the spot, and 207. to 207. 10s. for forward delivery.

**TIN-PLATES** are in good request, and are now selling freely. **STEEL AND QUICKSILVER** without alteration.

**BIRMINGHAM, AUG. 31.**—Rylands' "Iron Trade Circular" says: "Iron trade steadier, but no important activity. Pigs stronger. Merchant iron in better demand. Tendency to rise in all metals."

**THE COPPER TRADE.**—Messrs. Vivian and Younger (Aug. 31) write: "The market must still be considered a rising one. On Monday the smelters advanced their prices 57. per ton all round for copper, and 04d. per lb. for yellow metal. This advance had been fully discounted, and produced no effect. The demand for tough has been so great that smelters are declining orders, except at 37. to 47. above their new quotations, and the former figures have been paid. In foreign copper a good business has been done, transactions being reported in Wallaroo and Burra at 907. and in Chile bars at 897. Holders of ores and regulas are not at all disposed to sell under 16s. per unit. The mail from Chili, received on Tuesday, advised two full cargoes for ores and regulas, and three partial ones for bars, the copper contents being about 1000 tons. Messrs. Robertson and Co. state, in their Circular, that they can give no quotation for ores or regulas, as there was no stock. The producers there were disappointed at the low prices they had heard of from England, which were 16s. for regulas and 827. for bars. But for three or four miles afterwards they would get worse and worse accounts, till they received advice that it would be difficult to sell regulas at 13s. 6d., or bars at 87. The latter prices must have had some effect on production, and it is to be hoped will so far

reduced it that with such help to a renewal of trade we shall see prices fairly remunerative to all concerned. But the rise yet taken place can only be considered as a small instalment towards such a result.

**THE TIN TRADE.**—Mr. L. Th. van Houten (Rotterdam, Aug. 20), writes: "The Dutch Trading Company has to-day fixed the second sale of tin this year to take place on Friday, Sept. 28, when 100,300 slabs of Banca and 700 slabs of Billiton will be brought forward, in lots of 100 slabs. The directors further give notice that no tin will be brought into the market by them before the spring sale next year; also, that till the first-named period no Government sale of Banca tin will take place in the Dutch East Indies; and, lastly, that no shipments of this metal will take place from the East Indies to China, for Government account, exceeding the quantity of 10,000 piculs. The above engagement does not apply to tin belonging to other parties. The catalogues, with the conditions of sale, will be issued in due time. On July 31 the stock of tin in Holland amounted to—

Stock second-hand, on warrants. Slabs 109,375 . . . 174,097 . . . 1864.  
Unsold stock . . . . . 117,449 . . . 26,460 . . . 1865.  
Total stock . . . . . Slabs 226,824 . . . 200,467 . . . 1865.  
The spring sale this year amounted to 111,746 slabs, sold at 49s. 8d. 100 fl.  
The autumn sale this year amounted to 110,000 slabs.

Total quantity offered this year. . . 221,746 slabs.

**NEW YORK, AUG. 16.**—There is but little demand for pig-iron, but the market is firm, and prices are well sustained. There is no change to note in bar-iron. The amount of business done is not large, but from store there is an improved demand. Copper has been active, and the sales for the past week larger, but at considerably reduced prices. The market is very unsettled, and we cannot make exact quotations. The prices are said to be quite remunerative, and the stock small.—*Iron Age.*

The demand for good dividend and progressive mines has been very great this week, and brokers and dealers have had some difficulty in executing orders, even at greatly advanced prices. The SHARE MARKET, therefore, after a long period of depression, has shown some of its old activity, and looks well for the future. Tin has again advanced, and the standard for copper was up on Thursday equal to about 4s. per ton on ore. The shares mostly dealt in have been Great Wheal Vor, Wheal Seton, West Chiverton, East Carn Brea, Chiverton Moor, Prince of Wales, Great Retallack, Cook's Kitchen, Chontales Gold, East Russell, North Treskerby, Providence Mines, Wheal Buller, Wheal Rose, Great Laxey, East Basset, Devon Great Consols, East Caradon, Marke Valley, and a few others. Wheal Buller shares have advanced to 18, 20; Stevens's shaft, sinking under the 80, is worth 127. per fathom for tin. The 80, east of this shaft, is worth 207. per fathom, with a very promising appearance. On Friday last 18 pitches were set to 56 men, at an average tribute of 9s. 6d. in 17. Great Laxey shares, 19 1/2 to 20 1/2; the accounts for six months ending July 1 shows a balance in favour of the company, including new capital account, of 25,0157. 16s. 9d. The ores sold realised 28,6787. 4s. 3d.; dividends paid, 15,0007.; general balance, including stock of ore unsold, 88,567. 4s. 10s. West Chiverton, 62 to 65; the 100, east of Hawkes's, is worth 157. per fathom; the 100 west, 307. for part carried. The 90, west of Burgess's, Valpy's part, is worth 707.; Williams's, 257.; and the 90 east, 257. per fathom. Four winzes below the 90 are worth 2407. per fathom. No. 3 winze, below the 80, is worth 607. per fathom; the 70, east of cross-cut at Batters's, is worth 307. per fathom, and opening out a good piece of lead ground. Burgess's shaft, sinking below the 80, is worth 307. per fm. The 110 cross-cut has been extended south of Hawkes's 10 ft.

Chiverton Moors have advanced to 6 1/2 to 6 3/4; the 50, east of cross-course, at flat-rod shaft, is worth 307. per fm., and a fine looking lode. Chontales gold firmer, at 2 1/2 to 2 3/4; Clifford Amalgamated, 12 to 12 1/2; Cook's Kitchen, 3 1/4 to 4. Prince of Wales leave of 20s. to 22s. 6d.; the lode was cut into 1 ft. 4 in. in the 45 west, on Thursday, of yellow and black ore, of good quality, and when taken down next week the agent thinks it will improve in value. East Basset have advanced from 11 to 22 1/2, 25; East Caradon advanced from 6 1/2 to 8 1/2, 9. West Frances are in demand at 2 1/2 to 5; there is said to be a great improvement in the 95 west. These shares were not long ago at 407. each, and with the advance in tin the mine ought to be placed in a good position. Central Americans have been in good request at 15s. to 20s., and seem coming into favour; while Mineral Rights are flat at 10s. to 12s. 6d.; this is owing to heavy purchases made for the settlement, which was so long delayed that when the time came many could not pay, and shares had to be closed against them. East Lovells have risen to 10, 11; East Russell, 2 1/2 to 2 3/4. Wheal Grenville shares rose to 30s., buyers, and leave off 25s. to 30s.; at the meeting the accounts showed a balance against the company of 7857. 19s. 8d., and a call of 2s. 6d. per share was made. The agent calculates the cost for the next three months at 7807. a month, while he hopes to raise the same quantity of tin and copper as in the past quarter, and which will, it is expected, fetch much better prices. The chief points of interest are in the 90 fathom level cross-cut, towards the counter copper lode, and the boundary shaft in East Grenville lode, which is down 33 fathoms, and the lode equally as promising at the depth as it was in East Grenville. This shaft is going down quite dry, and in new ground. East Carn Brea shares have advanced from 1 1/2 to 2 1/2, 3 1/4. East Wheal Grenville shares have risen from 2 to 2 1/2, 2 3/4; Frontino and Bolivia, 7s. 6d. to 12s. 6d.; Grambler and St. Aubyn, 2 to 3; Great Retallack, 15s. to 17s. 6d.; Great Wheal Vor, 24 1/2 to 26 1/2; Great Wheal Potune, 4 to 5; Marke Valley, 4 1/2 to 4 3/4; North Crofty, 20s. to 22s. 6d., and in demand. North Roskear, 2 1/2 to 3; North Treskerby shares have advanced to 3, 3 1/2; Providence, 23 to 25; Rosewall Hill and Ransom United, 10s. to 15s.; South Crofty, 13 to 15; South Grenville, 1s. to 3s.; Tincroft, 10 1/2 to 11 1/2; West Caradon, 6 to 7; West Seton, 13s. to 140; Wheal Basset, 80 to 90; Wheal Chiverton, 3 1/2 to 4 1/2; Wheal Crebor, 10s. to 12s. 6d.; Wheal Mary Ann, 6 to 7; Wheal Rose, 12 1/2 to 17 1/2; Wheal Seton, 150 to 160; Wheal Trelawny, 9 to 11; Wheal Uny, 20s. to 22s. 6d. North Downs, 7s. 6d. to 10s.; at the meeting, on the 24th, a call of 5s. per share was made, to pay off all liabilities, and provide for the future working of the mine. A good improvement has taken place in the back of the 40 and 50 fathom levels, and the agent hopes, after the next quarter, the mine will pay costs. The present workings are parallel with the rich courses of ore in North Treskerby and Wheal Rose.

There has been a very large business transacted in all descriptions of mines during the past week on the Stock Exchange, and the closing quotations, without exception, are considerably in advance of last week. Great Wheal Voss, 25 to 26; Great Laxey, 19 1/2 to 20 1/2; West Seton, 140 to 150; Seton, 160 to 170; West Chiverton, 62 1/2 to 65, ex div.; West Caradon, 7 to 8; Wheal Buller, 17 1/2 to 20; East Basset, 22 to 24; East Grenville, 2 1/2 to 2 3/4; Wheal Grenville, 1 1/2 to 2; East Carn Brea, 3 to 3 1/2; East Russell, 2 1/2 to 3; South Condurrow, 1 to 1 1/2; Chiverton, 5 to 5 1/2; East Caradon, 9 to 9 1/2; Clifford, 11 to 12; Devon Great Consols, 430 to 450. Foreign mines have also largely participated in the advance. Cobres have improved to 5 1/2, 6 1/2; Cape Copper, 3 1/2 to 3 3/4 prem., strong buyers; St. John del Rey, 47 to 49, in demand; English and Australian Copper, 1 to 1 1/2; Port Philip, 4 to 1; Capula Silver in good demand at 3; Don Pedro, par to 3; Anglo-Brazilian, 4 dis. to par; Pestarena Gold, 4 to 4 1/2 dis.; Val Antigorina, 4 to 4 1/2 dis.; Vallanzasca, 4 dis. to 4 1/2 prem.; Panulillo Copper, 2 1/2 to 3; Scottish Australian Mines, 4 to 5; Chontales, 4 to 4 1/2 dis.; Yorke Peninsula, 4 to 4 1/2 per share; Mineral Rights, 4 to 4 1/2 dis.; Central American, 4 to 4 1/2 dis. West Chiverton Mine has greatly improved, especially in the bottom level. These shares deserve attention from investors, as paying a high rate of interest, and are low in price. Chiverton Moor has improved in the 100 fathom level east, worth 12 cwt. of silver-lead per fathom. In Chiverton Moor a discovery has been made in the 50 fm. level, east of cross-course; the lode is worth 307. per fathom; shares firm, at 6 1/2 to 6 3/4.

**IRISH MINE SHARE MARKET.**—The extraordinary improvement in the money market has further greatly strengthened the demand, and prices for the shares of any leading mines; not, however, without some most capricious variations in the case of the Mining Company of Ireland, the shares of which, after a rational upward move, from our last week's quotation of 217. to fully 222. 2s. 6d., made a fresh start of 7s. 6d. on Monday last, then as suddenly dropped 10s. per share on Wednesday, and rose again 17s. 6d. on Thursday, without any other assignable reason for these rather wide fluctuations than the simple law of demand and supply. They command now 222. 10s. to 227. 17s. 6d. for cash (77. paid), and appear firmer than at the commencement of the week. Wicklow Coppers (27. 10s. paid), have again distinguished themselves by the absence of any notice-



able fluctuations, they leaving off in active demand at 237. 15s. to 237. 17s. 6d. for cash, while a small advance offered on 247. for forward account was not accepted by holders. In Connors some trading transaction has taken place at 15s. 6d., or an advance of 6d. per share. Other shares have not been enquired for.

At Redruth Ticketing, on Thursday, 2439 tons of ore were sold, realising 11,137. 13s. 6d. The particulars of the sale were:—Average standard, 1007. 19s. 0d.; average produce, 7½; average price per ton, 47. 11s. 6d.; quantity of fine copper, 176 tons 14 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
July 26	2590	100 10 0	6 7 1/2	43 18 6	11s. 4d.	£56 14 0
Aug. 2	3224	100 10 0	6 7 1/2	3 7 0	11 0	55 0 0
" 9	1684	97 6 0	6 1/2	3 11 6	11 0	55 0 0
" 16	3167	102 8 0	6 1/2	4 0 6	12 2	60 17 0
" 30	2439	100 19 0	7 1/2	4 11 6	12 7	62 18 0

Compared with last week's sale, the advance has been in the standard 3/6s., and in the price per ton of ore about 4s. 6d. Compared with the corresponding sale of last month, the advance has been in the standard 6/4, and in the price per ton of ore about 8s.

The following dividends were declared during August:—

Mines.	Per share.	Amount.
Mines	£4 5 0	£12,750 0 0
West Chiverton	2 0 0	6,000 0 0
West Wheal Seton	3 0 0	1,200 0 0
Alderley Edge	0 10 0	750 0 0
Providence	0 10 0	560 0 0
Wheal Bassett	1 0 0	512 0 0
Dolcoath	1 0 0	358 0 0
Bronllyd	0 6 0	300 0 0
Total		22,420 0 0

At Providence Mines meeting, on Wednesday, the accounts showed a credit balance of 7067. 15s. 10d. A dividend of 500l. (10s. per share) was declared, and 1467. 15s. 10d. carried to credit of next account. [The agent's report is of the usual satisfactory character, and the standard of tin has advanced 7/4 per ton in the last fortnight.]

At Wheal Mary Hutchings (Plympton) meeting, on Wednesday (Mr. Henry Sendy in the chair), the manager's report was most favourably received, and a full determination expressed by the shareholders present to carry out with all energy the further development of this mine, which to all appearance promises to be equal to any in the two counties. The balance in favour of the mine, after paying all costs, amounts to 269l. A call of 3s. per share was made to meet the payment of a large quantity of materials and plant purchased by the lessees of the New Wheal Sidney, which are now required, and are at once applicable to the uses of the above mine.

At Wheal Tremayne meeting, on Aug. 22, the accounts for the six months ending June showed a credit balance of 19587. 15s. 7d. A call of 10s. per share was made. The pursuer, Mr. T. Field, states that by the present mode of working they are making a small profit monthly, and by realising a portion of the plant he hoped to be able to discharge their liabilities without making another call. It is the opinion of the agent that an outlay of about 2000l. would result in the discovery of a good mine on the south lode.

At South Wheal Crofty meeting, on Monday, Mr. E. H. Rodd, the pursuer, said:—“I have the pleasure to share with other mines the disastrous state of the metal market, but I am glad to be able to report that by the care and rigid economy of the agents, in the face of a low standard, and the falling off in value of some of the levels, we have been enabled to make a profit of 207. 4s. 6d., against a loss at the last quarter of 177. 2s. 7d. It is important that this profit is made under the adverse circumstances of a low standard and a less productive return of ore, as our position at the present time, strengthened by the discovery of a valuable lode (No. 3) in the 130 fm. level cross-cut, which promises to add to the value of the mine, provided it continues as at present, and with a fair chance of its improving, as it has a strong and promising appearance, and has improved in size and quality since it was first cut. No. 2 lode is apparently improving, which was not the case at our last meeting. I think, looking at the probable improvement in the money market, and a further rise in the price of metals, with the improvements referred to, we may continue to show a larger balance in favour of the adventurers in the face of the cost-book. The report of the agents will justify this estimate, and I hope to meet you in future under brighter circumstances.”

At St. Ives Consols quarterly meeting, on Aug. 21, the accounts showed a credit balance of 7297. 18s. 9d. The loss on the last quarter is given at 481l., but the improved prospects of the mine, and the advance in tin, will no doubt liquidate that loss during the current three months.

At Gawton Copper Mine meeting, on Tuesday (Mr. Rowlands in the chair), the accounts showed a credit balance of 1487. 7s. 5d. The report of the agents and the details of the meeting appear in another column.

On the Stock Exchange a steady demand for Mining Shares has continued during the week. The following quotations were officially recorded in British Mining Shares:—East Basset, 14½, 14½, 17½; East Carn Brea, 14½, 2, 2½; Great Wheal Vor, 22, 23½, 23½, 25½; Herodsfoot, 33; Marke Valley, 3½, 4, 4½; Providence, 21½; West Seton, 120, 135, 145; Devon Great Consols, 417½, 407½, 420; East Caradon, 7½, 7½; East Grenville, 2½; Great Laxey, 20, 19½, 19½; West Caradon, 7½; West Chiverton, 62. In Colonial Mining Shares the prices were:—Scottish Australian, ¼; Cape, 9½, 9, 10; Yudanamatana, ¼. In Foreign Mining Shares the prices were:—Linares, 1; St. John del Rey, 46½, 47½, 48; Pestarens, ½, 1; United Mexican, 1½, 1½, 2; Cobre, 1½; Paucillo, 2½, 3; Chontales, 2, 2½.

**COAL MARKET.**—The fresh arrivals this week only reached sixty-four ships. The supply of house coal being insufficient to meet the increased demand, the trade has been very active, and we quote a rise in prices of from 1s. to 1s. 6d. per ton, at which the market is cleared. In Hartley and manufacturing coals no variation. Hetton Wallsend, 21s. 6d.; South Hetton Wallsend, 21s. 6d.; Braddyll's Hetton Wallsend, 20s. 6d.; Kelloe Wallsend, 20s.; South Hartlepool Wallsend, 20s.; Eden Main, 20s.; Hasting's Hartley, 18s. Cargoes unsold, 1; ships at sea, 50.

**CONTRACTS FOR COAL.**—The Admiralty Commissioners require the supply of 600 tons of Coal, delivered at Chatham Dockyard. The Commissioners also require 500 tons North of England Coal, delivered at Greenwich. Particulars of both contracts appear in our advertising columns.

**GOVERNMENT CONTRACTS.**—The Admiralty Commissioners require a contract for supplying and delivering into Her Majesty's Victualling Stores—at Deptford 3600 barrels, and at Haulbowline 1800 barrels, of Salt Pork. The particulars appear in our advertising columns.

The Bank of England return for the week ending on Wednesday evening was again highly favourable. In the ISSUE DEPARTMENT there is shown an increase in the “notes issued” of 41,460l., represented by a corresponding increase in the “coin and bullion” on the other side. In the BANKING DEPARTMENT there is shown an increase in the “public deposits” of 725,490l., from which must be deducted a decrease in the “other deposits” of 290,424l.; a decrease in the “seven day and other bills” of 11,657l.; and a decrease in the “rest” of 30,567l. = 332,678l.; leaving a total increase on the liability side of 392,731l., which, added to the decrease in the “other securities” on the asset side, gives an increase in the total reserve of 1,343,405l. The minimum rate of discount now stands at 6 per cent.

At the Flintshire Oil and Cannel Company annual meeting, held at the Queen's Hotel, Chester (Mr. E. G. Sallisbury in the chair), the profits for the month's working were shown to be over 20,000l., and this would enable the directors to pay a dividend of more than 10 per cent. upon the paid-up capital, and to carry to the reserve fund 4675l. 3s. 9d. By Sept. 1 their entire works at Saltney and Leeswood would get into full working operation, when great profits are anticipated by working up ready for sale the whole of their old heavy oil. A dividend of 11. 10s. (making with the interim dividend of 11. paid on April 25 a dividend of 21. 10s. per share) was declared.

At the Joint-Stock Coal Company general meeting, at the Whitlington Club, on Wednesday, it was unanimously resolved that the nominal capital of the company be increased to 100,000l. by the issue of 50,000 additional shares of the nominal value of 11. each, with 5s. per share to be paid on application and 5s. on allotment, which shares shall be considered as part of the original capital of the company, and shall rank equally with and be subject to the same provisions as those shares issued. A large number of shares have been already applied for, and from the prosperous condition of the company, and its vast constituency, there is no doubt the increased capital will be rapidly subscribed.

At the London and Glasgow Engineering and Iron Ship-Building Company meeting, yesterday (Lord Claude Hamilton, M.P., in the chair), Mr. D. Kinghorn (the general manager) reported that during the last half-year the work completed consists of three screw and one paddle steamers, and three steam launches, of the aggregate tonnage of 2030 tons and 290-horse power, besides fitting out a pair of engines of 280-horse power, and doing other work in a vessel, the hull of which was built by another firm. The work on hand consists of five vessels, of the aggregate tonnage of 7900 tons, seven pairs of engines of the combined power of 1420 horses, and of other minor orders; also of work connected with the extension of the company's engine-works, which is proceeding satisfactorily, and likely to prove very advantageous, by increasing the facilities for carrying on this description of work. The Chairman referred to the disturbance in the financial world, and the strike among the workmen, as the causes which had militated against the satisfactory progress of the company, but expressed an unabated confidence in its eventual success. The report of the directors was received and adopted, and a resolution was passed to the effect that the meeting recommended the directors to take the necessary steps to ascertain the opinion of the shareholders and creditors as to the advisability of reducing the denominational value of the shares from 50l. to 10l. shares, with 4l. paid.

**THE TIN STANDARD.**—On Wednesday the smelters announced an additional advance of 3s. per cwt. in the tin standards. This makes an advance in the past fortnight of nearly 6l. per ton upon black tin of average quality.

## THE MINING JOURNAL.

Contract for Coals for Greenwich Hospital, &c.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



**THE COMMISSIONERS** for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 11th September next, at half-past One o'clock, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING into the Stores of the Royal Hospital and School at Greenwich, FIVE HUNDRED TONS OF COALS. The coals to be of the descriptions known as Stewart's, Haswell, Hutton's, South Hetton's, and Lambton's, and to be delivered by the 30th September next.

No tender will be received unless made on the printed form provided for the purpose, and which may be obtained on application in the Lobby of the Department of the Medical Director-General, Admiralty, Somerset House, where the conditions of the contract may be seen.

No tender will be received after half-past One o'clock on the day of treaty; and it will not be required that the party tendering, or an agent on his behalf, should attend at the office on the day of contract, as the result of the offer received from each person will be communicated to him and his proposed sureties in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words “Tender for Coals for Greenwich Hospital, &c.” and must also be delivered at the Department of the Medical Director-General, Admiralty, Somerset House, signed by two responsible persons, engaging to become bound with the person tendering in the sum of £100 for the due performance of the contract.

By order, **ANTONIO BRADY**, Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Aug. 30, 1866.

### Contract for Coals for Chatham Dockyard.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



**THE COMMISSIONERS** for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland do hereby give notice that on FRIDAY, the 7th of September next, at Two o'clock, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING, at Chatham Dockyard Extension Works, SIX HUNDRED TONS OF COALS.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House.

No tender will be received after Two o'clock on the day of treaty, nor will any be received unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words “Tender for Coals,” and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £20 per 100 tons for the due performance of the contract.

By order, **ANTONIO BRADY**, Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Aug. 29, 1866.

### Contracts for Salt Pork.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



**THE COMMISSIONERS** for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland do hereby give notice that on MONDAY, the 1st October next, at Twelve o'clock at noon, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING into Her Majesty's Victualling Stores at the undermentioned ports the following quantities of

**SALT PORK.**  
all of the cure of the present season:—viz.:  
DEPTFORD ..... 3600 tierces 3600 barrels.  
HAULBOWLINE ..... 1800 ..... 1800  
Each tierce of pork to contain 75 pieces of 4 lbs. each, and each barrel 50 pieces of 4 lbs. each, instead of the number of pieces formerly contained in the tierces and barrels.

The pork to be delivered into the respective stores as follows:—viz.: one-third of each quantity at each place by the 15th day of January, 1867; another third thereof by the 5th day of March, 1867; and the remainder thereof by the 30th day of April, 1867; or any greater portion, or the whole, at any earlier period, if preferred by the party tendering, and to be paid for by bills at three days after date, which will be sent to parties as usual.

Their Lordships reserve to themselves the power, when the tenders are opened, of contracting either for the whole, or for such part thereof only as they may deem fit, or for a greater quantity, or not contracting for any, and also an unlimited power of selection in accepting the tenders.

Every tender must specify the name of the person by whom the meat is intended to be cured, the brand of the meat, and the place of cure.

Tenders for pork of the cure of the United States of America will not be admitted.

Persons tendering for more than one port must give a separate tender for each port.

Persons tendering must give a reference to a banker for each surety proposed; and they are desired to take special notice that the use of wooden hoops is abolished, and that iron hoops only will be required for the casks, in accordance with the conditions of the contract.

A form of the tender may be obtained, and the conditions of the contract, to which particular attention is called, may be seen in the lobby of the Department of the Controller of Victualling, Somerset House; or at the Victualling Yards at Gosport and Plymouth; or by applying to the Agent Victualler at Haulbowline; or to the Collectors of Her Majesty's Customs at Bristol, Liverpool, Belfast, Waterford, and Newcastle; or to the Secretary to the Postmaster-General at Dublin; or to the Commander conducting the packet service at Liverpool.

No tender will be admitted for a less quantity than 100 tierces, or 100 barrels.

No tender will be received after Twelve o'clock at noon on the day of treaty, nor any notified unless made on the printed form provided for the purpose; but it will not be necessary that the party tendering, or an agent appointed by him, should attend, as the result of the offer received from each person will be communicated to him and to his proposed sureties in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner of the envelope the words “Tender for Salt Pork,” and must also be delivered at the Department of the Controller of Victualling, Somerset House.

The contractors will have to pay half the amount of the stamps on the contracts and bonds.

By order, **ANTONIO BRADY**, Registrar of Contracts and Public Securities.

Contract Department, Admiralty, Somerset House, Aug. 28, 1866.

### Tenders for the Loan of £50,000.

**TO FIRE AND LIFE ASSURANCE OFFICES, ENDOWMENT SOCIETIES, CAPITALISTS, AND OTHERS.**—THE BOARD OF WORKS FOR THE GREENWICH DISTRICT are DESIROUS OF RECEIVING TENDERS for the LOAN of FIFTY THOUSAND POUNDS, in one or more sums, repayable by instalments in thirty years, on the security of the Sewer Rates of the District. It is requested that tenders, stating the lowest rate of interest required, may be sent in to the Clerk's Office, Church-street, Greenwich, on or before the 18th of September next.

Further information may be obtained at the Clerk's Office as above.

By order, **JAMES WHEATLEY**, Clerk to the Board.

Greenwich, August 27, 1866.

**TO WAGON AND OTHER COMPANIES.**—TO BE SOLD, BY PRIVATE TREATY, SEVERAL ACRES OF LAND, adjoining CONGLETON STATION, NORTH STAFFORDSHIRE LINE.

Address, Mr. J. H. WILLIAMSON, Goldenhill, Stoke-upon-Trent.

**TO RAILWAY CARRIAGE BUILDERS, AND OTHERS.**—TO BE DISPOSED OF, BY PRIVATE TREATY, A WORKS AND LAND adjoining, having a siding to two principal railways, and water communication. Immediate possession can be given. Apply, for further particulars, to “S. T.” MINING JOURNAL office, 26, Fleet-street, London.

**TO QUARRYMEN, CONTRACTORS, &c.**—TO BE LET, OR SOLD, A QUARRY IN NORTH WALES, within 400 yards of a railway, producing a superior quality of girt stone, for which there is a great demand. For particulars and reports, apply to Mr. T. W. COWAN, Ruabon.

**LEAD MINE.**—FOR SALE, BY PRIVATE CONTRACT, the LEASE, PLANT, and MACHINERY of TEES SIDE MINE, in ALSTON, CUMBERLAND. This set is very extensive, and is traversed by several powerful veins; from one of them 1000 tons of lead ore has been raised from a shaft 20 fms. deep, and on a length of ground about 50 fms. in extent, at 1-7th duties. The dues are now 1-20th. Lodgings for miners, workshops, stabling, &c., are all in order for immediate operations. The agent on the mine will show the property; and for other particulars apply to Messrs. HOYLE, SHIPLEY, and HOYLE, Solicitors, Newcastle-on-Tyne; or Messrs. HILL and HOYLE, No. 123, Cannon-street, London.

**FOR SALE, A PLUMBAGO MINE** in the Island of SARDINIA, presenting numerous chances of success to those engaged in mining concerns. For further information, address Mr. JAMES HOPKIN, Stanhope, via Darlington. [This mine was referred to in a letter to the Mining Journal, July 14, 1866, by “E. G. S.” headed “Mining in Sardinia.”]

**TO MINE, SLATE QUARRY, AND RAILWAY COMPANIES.**—CAPT. C. WILLIAMS is NOW OPEN TO UNDERTAKE ALL KINDS OF CONTRACTS, such as DRIVING LEVELS, SINKING SHAFTS, CONSTRUCTING WATER COURSES, CANALS, TRAMWAYS, &c., and ERECTING ALL SORTS OF MACHINERY for MINING and OTHER PURPOSES, having on hand at all times a first-class staff of miners and machinists, who will proceed to any part of the world upon the shortest notice.

N.B.—In all cases 30 per cent. will be left in hand until the work is complete.

Tyn-y-Wern, Tallesin, via Shrewsbury.

**ELFORD, WILLIAMS, AND CO.,** COPPER ORE WHARFINGERS, SHIP BROKERS AND COAL EXPORTERS, METAL AND GENERAL COMMISSION AGENTS, SWANSEA.

ELFORD, WILLIAMS, and Co. having erected an assay office, and engaged the services of a practical Cornish assayer, who will be willing to take the branch of their business, they are now in a position to make correct assays of silver, copper, and other mineral ores, on the most moderate terms.

## IMPORTANT TO CAPITALISTS AND MINING COMPANIES.

—THE ADVERTISER, who is a Cornish Mining Captain of 40 years' experience, both in England, Wales, Ireland, France, and Italy, and now resident in the latter country, is OPEN to an ENGAGEMENT to INSPECT MINING PROPERTIES. The Advertiser is also in possession of, and acquainted with, several VALUABLE PROPERTIES, containing lodes of GOLD, SILVER, LEAD, COPPER, and NICKEL ORES, which he is authorised to DISPOSE OF. He will be happy to afford information on all points connected with mining. All applications to be addressed to Captain JOHN KESSELL, Burgofranco, Ivrea, Italy; or Scopello Mines, Scopello, Val-Sesia, Piedmont.

**WANTED, by the Advertiser, a young man, a SITUATION** as ACCOUNTANT. Is conversant with mining and other accounts. No objection to go abroad. The highest testimonials as to character and ability.—Address, “B.” Post-office, Tavistock.

**WANTED, a SITUATION as RESIDENT MINING ENGINEER.** For further particulars and reference, apply to Messrs. WOODHOUSE and JEFFCOCK, No. 12, Great George-street, Westminster, and of Derby.

**TO ALL INTERESTED IN MINES.**—A METALLURGIST, having discovered a cheap and easy method of extracting the precious metals from minerals, clays, &c., will, in order to further test the practicability of the discovery, ANALYSE, FREE OF CHARGE, any MINERALS, &c., supposed to contain such, upon a sample of not less than 7 lbs. weight (carriage paid) being sent to Messrs. ANDERSON, BAKER, and CO., 66, Basinghall-street, London, E.C.

**THE METAL TRADE.**—A WELL-ESTABLISHED HOUSE in AMSTERDAM, having good connexions with Metal Dealers and Manufacturers in Holland, would be glad to UNDERTAKE the SALE of METALS, MACHINERIES, and WOOLS, upon commission, for first-rate houses in England. References of the highest respectability are offered.—Address, “H. H.,” prepaid poste restante, Amsterdam.

**THE IRON TRADE.**—WANTED, a GENTLEMAN experienced in the trade, to ACT as TRAVELLING AGENT for the SALE of PIGS and PLATES. First-class testimonials required as to character and general competency.—Apply to Messrs. EVERITT, FLETCHER, and LUCAS, Althallows Chambers, 49, Lombard-street, London, E.C. 29, 1866.

**TO METAL BROKERS.**—A Man of thorough practical experience in the Metal Trade is DESIROUS OF OBTAINING an APPOINTMENT in a METAL BROKER'S ESTABLISHMENT. Good references.—Apply “M.” 63, Elm-street, Roath, Cardiff.

**IRON ORE AND IRONSTONE.**—A GENTLEMAN, thoroughly acquainted with most of the English and Foreign Iron Ores, is DESIROUS OF OBTAINING an AGENCY for the SALE of FIRST-CLASS QUALITIES, either on commission or otherwise. Unexceptionable references.—Address, in the first instance, to “Yield,” care of Editor of the MINING JOURNAL, 26, Fleet-street, London.

**A GENTLEMAN** having an extensive connection with merchants manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, upon commission.—Apply to Mr. W. T. RAWLE, patent and mining agent, 8, Small-street, Bristol.

**TO CAPITALISTS.**—TO BE DISPOSED OF, BY PRIVATE CONTRACT, SPEARHEAD CONSOLS MINE SETT and MATERIALS, consisting of a 26 in. cylinder PUMPING ENGINE, 20 in. WINDING ENGINE, 150 fms. of pitwork, skips, &c. With a moderate outlay this would probably become a valuable property, being bounded by Botallack, Levant, Spearhead, and East Levant Mines.—For particulars, apply to Mr. JAMES B. COLSON, Penzance, Cornwall.

**TO MUNDIC BUYERS.**—FOR SALE, about TWO HUNDRED TONS of SUPERIOR QUALITY ROUGH SULPHUR MUNDIC, also ONE HUNDRED TONS of SMALL SULPHUR MUNDIC. Samples to be sent on application to Mr. B. MATTHEWS, St. Day, Cornwall.—Aug. 13, 1866.

**ASSET of the MINING JOURNAL**, from May 4, 1861, to Dec. 30, 1865, less twelve numbers of sundry dates missing, in excellent condition, FOR SALE.—Offers, by letter only, to Mr. PRICE, 31, Upper Seymour-street, London, W.

**GOTHIC MINE.**—WANTED, FIFTY SHARES, at 45s. (fully paid up); or, state lowest terms for cash, and number of shares.—Address, “Speculator,” MINING JOURNAL office, 26, Fleet-street, London, E.C.

**PATENTS AT HOME AND ABROAD.**—INVENTORS desirous TO SECURE INVENTIONS and DESIGNS by PATENT or REGISTRATION, may obtain ADVICE and INFORMATION by applying to Mr. HENRY, Memb. Soc. Arts, Assoc. Soc. Eng., Consulting Patent, Registration, and Copyright Agent, 68, Fleet-street, London, corner of and entrance in Whitefriars-street. Technical translations effected. Drawings and lithographs prepared.

**MR. EDWARD BREWIS**, having just returned from a tour in Paris and Northern France, will be most happy to receive particulars of Mining Companies in Cornwall, Devon, Northumberland, and Great Britain generally, for a circular about to be issued, and which is now in preparation. Particulars to be sent early to S. Warford-court, Throgmorton-street, London. Bankers, National Bank, Old Broad-street. All orders to Buy or Sell executed as usual.

August 31, 1866.

### LEAD ORES.

Date.	Mines.	Tons.	Amount.	Purchasers.
Aug. 24	Great Laxey	100	£20 16 0	Sheldon and Co.
27	East Loggias	50	11 6 0	Sims, Williams, & Co.
—	Glogfach	60	15 2 6	Panther Lead Co.
—	Cwmystwith	65	11 3 6	Walker, Parker, & Co.
28	Wheal Mary Ann	84	23 2 6	Sims, Williams, & Co.
—	ditto	31	12 2 6	Trefry's Trustees.

### COPPER ORES.

Sampled Aug. 15, and sold at Tabb's Hotel, Redruth, Aug. 30.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	95	£4 4 0	West Damsel	53	£3 18 6
ditto	76	5 13 0	Fowey Consols	100	4 2 6
ditto	68	13 3 6	ditto	64	5 0 6
ditto	66	4 13 6	ditto	50	5 2 17 6
ditto	62	12 11 6	Wheal Rose	56	4 2 6
ditto	51	9 15 6	ditto	53	4 1 6
ditto	35	11 6	ditto	46	4 13 6
Clifford Amalgam	32	2 1 6	ditto	30	3 10 6
ditto	61	2 18 6	Glasgow Caradon	60	2 15 6
ditto	60	2 16 6	ditto	58	2 17 6



## WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,  
MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

**Messrs. WATSON AND CUELL** having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a division of small risks in several mines, ensuring success in the aggregate, and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

**PRINCE OF WALES.—"J. P."**—We have on several occasions cautioned our clients against being influenced by the devices of the "bear." This week we have had several such letters forwarded for our perusal as that which tells "J. P." the shares will soon be at 5s. again. The wish is often father to the thought, and when "J. P." says he "does not know why a stranger should take such an interest in his welfare as to advise him to sell out his shares immediately," it is not so difficult for us to imagine a reason.

**"A SHAREHOLDER."**—We believe it is an absolute fact that while East Grenville was 2s. per share, buyers, in London last week, and could easily have been sold at that price, nearly 200 shares were sold by auction in Cornwall, by order of the executors of a deceased proprietor, at 18s. to 20s. each. When we saw the notice in the *Journal* to which our correspondent refers, we had an idea also that there was either a mistake in the price, or they had been "bought in" at the quotations given; but we learn they were really sold, and some of those who were fortunate enough to secure them are said to have telegraphed to London, and sold them at cent. per cent. profit in a day. We suppose, however, the executors considered it their duty to sell by public auction.

**"A CAUTIOUS SPECULATOR."**—Since our reply last week, several shares have risen 5s and 100 per cent.

**THE DOVER AND CALAIS RAILWAY.**—Without attempting to discuss the practicability of connecting the French and English coasts by what may be designated a terraneous means of communication, or to demonstrate the utility or inutility of such a connection if effected, there are many who pay great regard to the projects from time to time brought forward by the inventive, both in France and in this country, from the field which it offers for exciting speculations upon the probabilities of their success or failure in the event of the realisation of them being attempted; it is, therefore, interesting to note any new suggestion bearing upon the subject. In classifying the propositions hitherto made, it will be found that, although all have alike avoided actual interference with the sea, they naturally divide themselves according to the general principle adopted as the basis of operations—the first speculate on the nature of the rocks beneath the channel being such as to permit of the driving of a tunnel without inspection, the second take the sea bed as the foundation upon which the able difficulty, the second take the sea bed as the foundation upon which the superstructure shall be raised. The conclusive objection to the first is, that even assuming the stratum to be passed through to be of the most favourable description for working in, the time and cost of driving would be so great as to prevent its receiving the sanction of any but the most reckless speculators, whilst the practicability of the second is equally disproved by the fact that beyond given lengths no material will even support its own weight, much less carry a railway train, whilst in all probability the first step, supposing the possibility of the bridge being constructed, would be to leave the channel as free from obstruction as it is at present. With regard to the suggestion to lay a metallic tube on the sea bed, and thus effect the connection, it is unnecessary to say more about the project than that its adoption could not fail to prove advantageous to the iron trade, provided "cash against bill of lading" be the terms upon which the iron is supplied. A new project is now being brought forward by Mr. CHARLES BOTCHER, whose inventions for stopping railway trains, producing perpetual motion, drawing railway trains by water-power, &c., have already been referred to in the *Mining Journal*. His plan is to construct a pontoon bridge, to connect the two sides of the channel, and to get the work open for traffic in five years. The pontoons or buoys are to be placed at given distances from each other, and 64 cables to form the platform are to be carried across singly, and afterwards interlaced together with smaller wire-rope band. The band chains thus produced will be 7 to 8 in. in thickness, and if necessary will be stiffened by somewhat similar band chains, placed vertically instead of horizontally. The bridge is to be provided with two lines of rails in the centre; on each side of these there will be ordinary carriage ways, whilst the two outside will serve for foot passengers. There will be established on the bridge light constructions, such as refreshment buffets, boxes for the inspectors and attendants of the line, &c.; and several lighthouses on each side will form a sufficient guide for vessels. Four rows of gas-lights will illuminate the bridge, and the railway will be enclosed by railings, to prevent the possibility of danger from horse-taking freight upon the passage of the trains; and solid parapets will be provided to protect the foot passengers from falling over. Mr. BOTCHER has prepared an elaborate series of answers to the many objections which naturally present themselves to the practical man upon considering his project, and entertains the strongest conviction of the correctness of his views, and the facility with which they can be carried out.

**NORTH WHEAL TOR.**—This mine is being wound-up under the Companies Act, and several important questions have arisen in the Court of the Stannaries before the Registrar and the Vice-Warden respecting certain claims made for moneys advanced by certain shareholders for the purpose of carrying on operations; and at the last sitting the Vice-Warden held that the shareholders having proved that the moneys advanced had been properly expended in carrying on the legitimate operations of the undertaking, they ought to be reimbursed the moneys so expended. The liabilities of the company are considerable, and it became necessary to make a call of 12s. 4d. per share to discharge the accounts.—Mr. Roberts now appeared for two shareholders, who objected to the call on the ground that it was excessive, inasmuch as their claim, which amounted to 370l. and upwards, was more than was due from them. It appeared from Mr. Roberts's statement that these petitioners had relinquished their shares in June, 1861, and that a statement of account was arrived at by which the petitioners were credited with the sums in question, after debiting them with their proportion of the liabilities of the company down to the end of July, 1861. But such statement of account did not contain a true version of the liabilities of the company as then existing; and, therefore, the account should be re-opened, the effect of which would be to reduce the claims of the petitioners and, consequently, to reduce the amount of call to be made.—Mr. Marrack, on the other hand, called the attention of the Court to the facts as proved by the books of the company, and also to the facts which appeared on the file of proceedings—these facts being, that in the month of June, 1861, the petitioners and another gentleman, whose claims were now for the first time disputed, relinquished their interest in the company, after debiting them with their proportion of the liabilities down to the date of their relinquishment, and giving them the full credit, showed a balance in their favour of the amount now in dispute. The operations on the mine were continued several months after this account was arrived at, and which account was set out in *extenso* in the cost-book, and numerous meetings were held, which were attended by the present objecting parties, at which calls were made for the purpose of discharging the subsequent liabilities incurred by the company; and it appeared from the file of proceedings that the claims objected to had been allowed by the Vice-Warden so far back as the month of April, 1865, and had been confirmed by the Vice-Warden on the 10th of May, 1865, and had been made.—After a long discussion the Vice-Warden decided that he should not open the settled account, which had been arrived at so far back as the year 1861, and that at present he should confirm the order for a call, which had been objected to by two of the shareholders.

**IMPORTANT SALE OF MINING PROPERTY BY THE STANNARY COURT.**—On Tuesday these extensive mines situated in St. Just, hitherto worked under the Limited Liability Act as the St. Just United Mining Company, were submitted to public competition by an order of the Vice-Warden of the Court, and were knocked down to Messrs. Ward and Phillips, of London, for the sum of 3250l., for the materials, engines, &c., and 5000l. for the sets and grants of lease, &c. It is stated that several persons residing in the immediate locality join in the new proprietary. Provided the tin market still improves, those who are fully competent to form an opinion consider, at the price mentioned, the property is a great bargain, the mines being still very productive for tin, and all the machinery and underground operations in a most thoroughly effective state of order and completeness. The realisation of this extensive mine will be a great boon to the working classes, and should be heard of with great satisfaction by all those interested in the prosperity of the St. Just United Mines.

**SALE OF MINES.**—The sets and machinery of Carnyorth have formally passed from Mr. York, of Penzance, the late pursuer of the mine, to Mr. S. H. James, pursuer of Botallack, who, fully authorised by his co-adventurers, gives 970l. for his neighbour's adventure.—*Cornish Telegraph.*

## THE FINSBURY PARK FREEHOLD LANDED ESTATE

AND BRICK-MAKING COMPANY (LIMITED).  
To be incorporated under the Companies Act, 1862, whereby the liability of each shareholder is strictly limited to the amount of his individual subscription.

Capital £20,000, in 6000 shares of £10 each.  
£3 per share to be paid on application, and £3 on allotment; and the remaining £4 at one month from date of allotment, making the shares paid-up in full, and leaving no further liability.  
Should no allotment be made the deposit will be returned without any deduction whatever.

**DIRECTORS.**  
THOMAS THOMPSON, Esq., 12, Old Jewry Chambers, London—MANAGING DIRECTOR.  
WILLIAM TUXFORD, Esq., Director of the Great Laxey, 106, Upper Thames-street.

FRANCIS HOUTSMAN, Esq., 5, New-square, Lincoln's Inn.  
MATTHEW GREENE, Esq., St. Michael's-house, Cornhill, London.  
HENRY L. PHILLIPS, Esq., 32, New Broad-street, Bedford-row.  
JOHN LESLIE PILKINGTON, Esq., 2, Great James-street, Bedford-row.  
(With power to add to their number.)

**BANKERS.**—The Imperial Bank, Lombury.  
**ARCHITECT AND SURVEYOR.**—James Wagstaff, Esq., 176, Upper-street, Islington.  
**AUDITORS.**—Messrs. Edwards and James, 18, King-street, Cheshire.  
**SECRETARY.**—John Russell, Esq.

OFFICES.—12, OLD JEWRY CHAMBERS, E.C.

## PROSPECTUS.

This company has been formed for the purchase of a freehold estate in the neighbourhood of, and immediately facing, the Finsbury New Park, and also to manufacture bricks from the valuable deposit of plastic clay which covers its surface to a very considerable depth.

The estate, containing about 27 acres, is situated within 200 yards of the Seven Sisters Road station, on the Great Northern Railway, and is in the centre of a large building neighbourhood; it adjoins Highbury New Park on the south-east, and has a considerable frontage to the Seven Sisters-road on the north-west. The Old Sluice House Tavern is on the property, and the fields and meadows have been the favourite resort of Londoners for many years past.

At a rough estimate of the enormous and increasing demand which has of late years arisen for bricks, and the great difficulty which it has been met. It is notorious that all engaged in this manufacture are reaping large fortunes.

This manufacture is not an undertaking in which there is any hidden element to deal with—it has no speculative character; the calculations as to the operations are plain and simple, and the results as to profit easily deduced.

The estimate it may be stated, that, supposing it advisable to use the brick earth to a depth of 4 feet only, the estate will produce upwards of two hundred millions (200,000,000) of bricks, which it is calculated will yield a net profit of 15s. per thousand (1000), or for the whole estate £150,000. There is no reason, however, why the brick earth should not be worked to a much greater depth—in fact, the deposit has been proved to a depth of 30 ft., and the number of bricks it would produce, were it considered desirable to continue the workings, is, therefore, almost incalculable. The earth has been thoroughly tested for brick-making, and the results are highly satisfactory.

A large portion of this estate is traversed by the New River. The vendors have agreed with the New River Company to divert the stream, and the valuable piece of elevated land, which now forms the bed of the river—consisting of little else but well-puddled clay—containing as it does the material for many millions of bricks, will belong to this company.

As a building site—surrounded by the charming neighbourhoods of Highbury, Canonbury, Hornsey, and Stoke Newington, and within site of Alexandra Park, and with a splendid frontage to the Finsbury New Park—it is unequalled. The drainage of the estate (a matter of vast importance) is excellent, the high level sewer crossing the property at a depth of 30 ft. from the surface.

When sufficiently worked for brick-making, the estate will let, as laid out, on building leases, and will bring in, at the lowest estimate, £3000 per annum, which, taken for freehold ground rents at 25 years purchase, will yield £75,000. The vendors have agreed to part with the estate to the company for a sum of £20,000, and 1000 shares fully paid-up, together with a royalty of 1s. 3d. for every thousand of bricks manufactured and sold by the company.

The directors are empowered by the Articles to pay interest on the paid-up capital, at the rate of 6 per cent. per annum, until such time as the profits begin to accrue. And all profits exceeding 20 per cent. per annum are to be passed to a reserve fund, to be dealt with as the shareholders shall determine at a general meeting convened for that purpose.

As an investment, the company offers complete security; the property is certain to steadily increase in value, and after dividing the large profits to be made by the bricks, the estate will then be worth, for building purposes, at least £25,000.

Powers to increase the capital have been taken in the Articles of Association, should other eligible estates be met with.

Forms of application for shares to be had at the offices of the company, of the bankers, the directors, or the architect and surveyor.

## FORM OF APPLICATION FOR SHARES.

To the Directors of the Finsbury Park Freehold Landed Estate and Brick-making Company (Limited).

GENTLEMEN.—Having paid to the Imperial Bank (Limited) the sum of £2, being a deposit of £3 per share upon £10 each in the Finsbury Park Freehold Landed Estate and Brick-making Company (Limited), I request that you will allot me that number; and I hereby agree to accept such shares, or any less number than you may allot to me; and I further agree to pay £3 per share on allotment and the remaining £4 per share within one month of the date of allotment, and to sign the Articles of Association of the said company when called upon so to do.

Profession of occupation (if any) .....  
Residence in full .....  
Date ..... Usual signature .....  
Deposits to be paid to the Imperial Bank (Limited).

## THE WEST GREAT ST. GEORGE COPPER MINING

COMPANY (LIMITED).  
Incorporated under the Joint-Stock Companies Act, 1862, whereby the liability of shareholders is limited to the amount of their shares. In 6000 shares, of £5 each. £1 payable on application, and £1 on allotment.

If no allotment be made the deposit money will be returned.  
Capital £30,000, of which a large proportion is subscribed by the following shareholders:—

JOHN CROSSLEY, Esq. (Messrs. John Crossley and Sons, Limited, Halifax).  
JOSEPH CROSSLEY, Esq. (Messrs. J. Watson and Brothers, Church, Accrington).  
R. WATSON, Esq. (Messrs. J. Watson and Brothers, Church, Accrington).  
HENRY AMBLER, Esq., Watkinson Hall, near Halifax.  
F. APPELBY, Esq., Appleby House, railway contractor, Manchester.  
JOHN APPELBY, Esq., merchant, Manchester.  
LEO LOEWENSTEIN, Esq. (Messrs. Leo Loewenstein and Co., Manchester).  
J. VOILE, Esq., Birmingham.  
CHARLES CLAY, Esq., M.D., Piccadilly, Manchester.

**BANKERS.**—The Manchester and Liverpool District Banking Co., Manchester.  
Messrs. Roberts, Lubbock, and Co., London.  
Messrs. Williams, Williams, and Co., Truro, Cornwall.  
**SOLICITORS.**—Messrs. Sale, Worthington, Shipman, Seddon, and Sale.  
**AUDITORS.**—Messrs. Worthy Williams and Co., Manchester.  
**SECRETARY.**—Mr. Hugh Fleming.

**SHAREBROKERS.**  
Messrs. R. C. Clifton and Co., Aldine Chambers, Princess-street, Manchester.  
**RESIDENT AGENT.**—Captain Walter Thomas, Redruth, Cornwall.

**REGISTERED OFFICES OF THE COMPANY.**  
YORK CHAMBERS, KING STREET, MANCHESTER.

Applications for shares must be addressed to Messrs. R. C. CLIFTON and Co., the sharebrokers to the company; or to Mr. HUGH FLEMING, the secretary.

## ROYAL INSURANCE COMPANY.

The ANNUAL MEETING was HELD ON FRIDAY, the 10th inst., CHARLES TURNER, Esq., M.P., in the chair.

The following is an epitome of the report:—

**FIRE BRANCH.**  
The progress of the company, as respects the amount of business effected, has been satisfactory, the returns of duty published by Parliament, on the motion of the Chairman of this Company, exhibiting by far the largest measure of increase which the company has ever experienced.

The total net amount of fire premium for the year, after deducting guarantees, is £414,733 13s.

**LIFE BRANCH.**  
Turning now to the life branch, it remains to be reported that the progress has been marked by unchecked success. This will be made clear by one or two statistical exposures.

Taking the four previous quinquennial periods, it is found that the first, from 1845 to 1849 inclusive, commenced with a sum assured for—

Year 1845 of .....	£23,349, and ended his period with a total sum assured of .....	£272,796
The Second, 1850-54 .....	do .....	733,408
The Third, 1855-59 .....	do .....	1,655,678
The Fourth, 1860-64 .....	do .....	3,429,215

And now the first year of the fifth life period—viz., 1865—the company has granted assurances for £286,663, nearly twice the amount at the commencement of the last quinquennial period.

If, therefore, the result of the total five years, ending in the year 1869, were to have a corresponding increase with the previous periods of five years each, the amount of business that would be effected in the quinquennial period now running would be more than has ever been on record in any insurance establishment in this country.

The directors have likewise to report that the life funds have increased by the sum of £163,146, the accumulated funds of this department now amounting to £740,458. As an addition of, at least, £100,000 per annum to these accumulations during the next ten years may now be fairly anticipated, it is within reasonable expectation that during this period the life funds will approach nearly to £2,000,000 sterling.

The directors propose to the proprietors that a dividend be declared of 3s. per share, and a bonus of 4s. per share, together, per share, free of income tax. It is a matter of satisfaction to state that, after withdrawing the amount of this dividend and bonus from the profit and loss account, a credit balance will still remain to that account of no less than £62,076 9s., in addition to the reserve fund, which, by the augmentation of the year, now reaches the sum of £116,913 2s. 10d.

This report was unanimously adopted.

PERCY M. DOVE, Manager and Actuary.  
JOHN B. JOHNSTON, Secretary in London.

## Notices to Correspondents.

**NAMES OF MINES.**—Always strong suspicion attaches to the character of a man who drags a lot of aliases behind his name. I have been fairly puzzled to find out the whereabouts of some mines, and began to consider them extinct, but discovered they were still struggling on, but under another name. In but case of mines and all her faults, including the name? I am sure a thorough ventilation and reform agitation in this respect would do a great deal of good; and the avoidance of aliases would have a greater tendency to induce the public to invest more willingly in deserving concerns, including even broken-down cases, provided they do not raise suspicion by hoisting other colours.—A VERY SMALL INVESTOR.

**BROOKWOOD MINE.**—In your list of copper ore sales at Truro, on Aug. 23, I notice that East Caradon Mine sold 320 tons of ore for 1046l. 14s., and that Brookwood realised for 255 tons (or 65 tons less) 1157l. 18s. 6d. East Caradon A.I. 6½ and 7½ per share, whilst Brookwood is divided into 4000 shares, and has never yet paid any dividend. Can any of your correspondents explain this anomaly? If so, it would much oblige myself and other shareholders in Brookwood Mine.—*BUSINESS, Bristol, Aug. 25.*

**CONSOLIDATED COPPER MINES OF CORNWALL.**—An Old Subscriber.—In the *Journal* of August 4 a full report of the general meeting, held on July 31, was given. At that meeting certain resolutions were passed, which required confirmation, and for which purpose a special general meeting was held on August 21, when they were confirmed, as stated in last week's *Journal*. The discussion at that meeting was purely of a legal character, and principally between Mr. Upton (the company's solicitor) and a shareholder (also of the legal profession), the latter contending that his selection—the issuing of preference shares—would have the effect of placing the company in a satisfactory position, and prevent the necessity of registering under the Limited Liability Act. The Chairman explained that if that course could have been adopted the directors would have been only too ready to propose it, but having taken good legal advice, the resolutions passed at the last meeting were framed, and were then submitted for confirmation. This view of the question was confirmed by twenty-three shareholders voting for and one against the motion from the chair.

**NORTH TREKERRY.**—Your correspondent, Mr. C. Bayden, takes my strictures on his remarks on North Trekerby in a good spirit. It is evident that I viewed the matter solely with reference to the value of the mine, while he looks at it through glasses which can reach further than mine, and alludes chiefly to certain defects of management. Of the sound merits of the mine he appears to entertain as high an opinion as myself, and the fact that heavier costs than were calculated on, having been so quickly "settled" by the mine itself, such bad times can only tend to convince us more strongly of the elasticity and fertility of resource which it has displayed. In fact, even with its present discoveries, the lively demand for shares shows that the public appreciate a very considerable rise must ensue. In the market value; and if, as is daily expected, that level proves to be the richest yet seen, the shareholders will, indeed, hold a good prize. Mr. Bayden says he knows me well; I fancy he is mistaken, though "more people know Tom Fool than Tom Fool knows." At all events, he may rest assured that in his expressed resolve to expose the numerous abuses which inspire mine adventurers while they earn a bad name for mining, he will meet with my full support and of all who honestly wish well to—ONE AND ALL.

Received—"C. S. R." (New York)—"E. M. S. P."—"T. E."—W. E. Rendle—Joseph Kellow.

THE MINING JOURNAL,  
Railway and Commercial Gazette.

LONDON, SEPTEMBER 1, 1866.

## THE NORTH OF ENGLAND IRON TRADE.

This great dispute still "drags its weary length along"—at all events in the finished iron department. The blast-furnace men have in nearly every instance consented to go to work—and, indeed, seem exceedingly glad to have an opportunity of doing so. Owing to the fact that no inconsiderable number of blast-furnaces have been blown out for the present, only a moiety of the men have been able to obtain employment, the remainder being reduced to a state of great destitution, and having no prospects of obtaining work, except as agricultural labourers. Not only is there a large superabundance of labour in the furnace department of the iron trade, but the shipyards and general manufacturing establishments have recently discharged a portion of their hands. The men now see the effects of their folly, inasmuch as had they agreed to go on at the reduced rates originally offered, the smaller furnaces would not have been blown out, but being out they will not be put into operation for some time to come; certainly not until trade is considerably better than it is at present. In the forges and mills departments several firms are making partial time, by means of underhand puddlers and non-Union men, but this is mostly done where a few unexpired contracts are on hand. The men at several works have opened negotiations for commencing operations, though we can only report two works as being really on at the 10 per cent. reduction. These are the Weardale Iron and Coal Company, at Ferry Hill; and Messrs. FOX, HEAD, and Co., at Mid-diesbro'. In the latter case, the workmen agreed to begin last week at 11 per cent. below the old wages, but they stipulated that in case the general reduction enforced throughout the district should be less than 10 per cent. the difference was to be returned to them. When the precise terms of the arrangement were understood, the trade was not satisfied, and made representations to this effect to the proprietors. On Saturday last a notice was posted up at the works in question, stating that unless an unconditional reduction of 10 per cent. were accepted by the men, the works will be closed on Saturday week. The Stockton Rail Mill Company, who have never stopped their works during the strike, have this week suspended operations, owing to some accident. The demand for pig-iron is very flat, though some enquiries are coming in from Staffordshire; but, until there is a greater degree of confidence felt towards houses in the South, makers are very cautious how they accept orders. In connection with the strike, we may mention that the men have appealed to the London Working Men's Association for help; and, at the meeting of delegates, the representative from the men in this district stated that the masters had declined arbitration, and had signified their intention to compel all workmen to leave the Union before the works would be reopened. We are able to give the fullest contradiction to the latter part of this statement. One firm in its individual capacity expressed its determination to have no Union men, but the associated masters never hinted at this stipulation in their letter to the head of the Union, nor has any such action ever been contemplated by the trade. This is yet another instance of the duplicity fostered by the Union, and which has already shown itself on many occasions during the present struggle.

## THE COAL QUESTION—THE BRITISH ASSOCIATION.

It was scarcely to be expected that such an elaborate address as that delivered by Mr. W. R. GROVE, Q.C., F.R.S., upon his inauguration as President of the British Association for the Advancement of Science, would have failed to meet with some objections; it is, therefore, not surprising to find it complained that familiarity with the brilliant orations made, and the immensity of knowledge displayed, by Mr. GROVE at the bar, even in comparatively unimportant cases, justified the anticipation that the historical would have been less relied upon, and that the address would have been replete with practical suggestions. Instead of this, Mr. GROVE has scarcely recognised a future, and where he has, the ambiguity of his statements has given rise to the propagation of palpably irrelevant assertions.

It was stated by Mr. GROVE that—"At a moment when the prospective exhaustion of our coal fields, somewhat prematurely perhaps, occupied men's minds, there was much encouragement to be derived from the knowledge that we could at will produce heat by the expenditure of other forces." This has been interpreted to mean that we may rely upon "an inexhaustible stock of heat for our railways from the creative powers of science when our coal fields give way." Whether the original or the interpretation is the more worthy of condemnation it is difficult to decide, and, therefore, the *Times* correspondent, "Y," may be excused for attacking either of them. He has chosen Mr. GROVE's original statement, and replies to it by a lengthened communication, which contains, perhaps, one fact and several ingenious hypotheses. The argument adduced is that the sun is the source whence plants are derived, that all coal is derived from plants, and that, therefore, coal is an accumulation of sun-force. By this means he accounts for coal being obtainable with small muscular



force, and yet being capable of yielding much force when burnt. The strongest charge, however, which "Y." brings against Mr. GROVE is that he assigns no reason for his conjecture as to the future probable discovery of a substitute for coal. Prof. HUXLEY considers force of mind the equivalent of force of coal, and Prof. ROGERS maintains that "so long as the people are industrious and resolute Great Britain will be the highway and the mart of nations." And in conclusion, "Y." remarks that "what is happening at this moment in Cornwall from the exhaustion of its tin and copper will infallibly happen to Great Britain generally from the future exhaustion of its coal fields. Emigration is the only alternative, sad as it may seem, and accordingly the process of comparative depopulation has begun in Cornwall. There may still be plenty of tin and copper in that county, but if in these days of free trade they cannot be raised at a remunerative price, owing to foreign competition, then, in a commercial point of view, they may be regarded as worthless; and just so will it hereafter be with respect to our coal when a similar condition arrives."

Referring to the same subject, "J. R. S." says that—  
If anything were needed to show the fallacy of the argument that to science and the mental resources of Englishmen our commercial superiority over other nations is due, it would be the fact that it is only in the spots where coal is wrought or carried cheaply that our commercial property has increased and prospered. Let me ask whether Newcastle, Manchester, Sheffield, Birmingham, Leeds, Liverpool, Glasgow, and Ramsley would have been the foci for manufacturing industry had science and mind alone been at the disposal of the people inhabiting those cities? Assuredly not. Coal is the motive-power, and the first cause; and unless science can artificially reproduce coal, or its equivalent, our prosperity must be dependent on its supply. If any proof were needed to prove these premises, the position of London is a case in point. Forty years ago the price of coal in London was nearly double what it now is, thanks to the application of science to the raw material, coal, in the introduction of railways and ships propelled by steam. He contends that it must not be allowed, while daily acknowledging the rapid strides made by science, to blind our judgment as to first causes, or delude the good sense of the public into the fallacious belief that a substitute for coal may be discovered before the exhaustion of our coal fields. Petroleum assuredly will never take the place of coal, as it will, in this kingdom at all events, have been exhausted long before our coal, although that may last but 100 years.

With reference to the future supply of coal in this country, we must all naturally look with some impatience to the report of the Royal Commission appointed to enquire into the question; but he must confess that when he sees the scientific and coal-owning elements alone represented in that Commission, and the commercial element absent, he does not look for an entirely disinterested and comprehensive report, especially when it is the interest of every coalowner to work out as much coal during his lease, leaving the future to take care of itself, and, therefore, few coalowners will admit, or be led to believe, that the supply is failing, and should be restricted to national purposes; or that coal will not be eventually found under the Permian strata, the chalk, or London clay. It is contrary to all the teachings hitherto of our most practical geologists and coal viewers if such should be the case. At all events, to my mind, coal will have been imported into this country from America long before coal shall have been worked at the extraordinary depths required to reach it under such circumstances.

In conclusion, he thinks that few will deny that coal is being wrought excessively in this country, and for its growing needs must still continue to be worked, but, while a conscientious disciple of the free trade doctrine, he is thoroughly convinced that there are limits and exceptions to it, and that no coal should be allowed for export, except under a heavy duty—say of 5s. per ton. Wine free of duty is no equivalent for our coal. Grapes are reproducible, coal is not; hence the difference. The export of coal is 9,000,000 tons, representing one-tenth part of all that is wrought and raised in the United Kingdom. Surely this is a saving worth making in the interest of the present and the future.

Sir RODERICK MURCHISON, in his paper "On the vast Areas in England and Wales in which no productive Coal Beds can reasonably be looked for," at once dispelled the notion that coal was everywhere, if we went deep enough: he said that if it existed under the vale of Cleveland and the hills of the eastern moors of Yorkshire, it was at an unavailable depth; that there was none in Lincolnshire nor the eastern counties, and that it would be looked for in vain between the Mendip Hills and the Straits of Dover. In the North Riding, Mr. WEBB, of Newstead, is sinking an experimental shaft between Northallerton and the Tees. Sir RODERICK admitted the possibility that coal might be found there, but did not think it probable. Of Nottinghamshire he spoke with great confidence as "one of those British areas in which future supplies of coal will in all probability be worked by striking deep through overlying deposits." The Derbyshire coal seams, it appears, thicken and improve as they dip to the east under the magnesian limestone, and two-thirds of the Red Sandstone lands of the Midland Counties will eventually be worked as coal fields, though not till the shallower and more easily worked coal fields shall have been exhausted. The tone of the paper, and of the discussion which followed it, was not encouraging to the idea of the "practical inexhaustibility" of our coal. Prof. PHILLIPS drew a picture of a coming time when all the land from Nottingham to Ashby de la Zouch, now a beautiful agricultural country, would be covered with collieries. But though he thought the estimate of 110 years as the limit of the production of coal in this country was too short, and favoured an estimate of 300 to 400 years, he said nothing justified the expectation of an indefinite extension of the time. Much hope was expressed that the labours of the Government Commission would result in the formation of a definite estimate of our coal resources, and a solution of the question as to the depth at which coal can be worked. The future prospects of the immediate neighbourhood of Nottingham were spoken of as very encouraging, and Sir RODERICK, in closing the discussion, said that the reason why he had brought his paper to read at Nottingham was, because he was "rejoiced above measure to find that Nottingham was about to become as productive a coal country as any in England, for the area over which the coal exists."

Mr. HEDLEY's paper, "On the Sinking of Annesley Colliery," informs us that the shaft is two miles east of an existing colliery, and that it has solved the question of piercing successfully through the water-bearing strata of the New Red Sandstone and the Permian measures, which overlay the coal measures on their dip towards the east in the county of Nottingham.

#### THE COAL RESOURCES OF CHINA.

In an interesting paper on this subject, read before the North of England Institute of Mining Engineers, it was stated that the price of English coal being high in China, the British Naval Commander-in-Chief, while on the station, directed his attention to the mines of Pekin, to ascertain whether they yielded suitable steam coal, obtainable on reasonable terms. Enquiry was first made of the native coal merchants of Tientsin, the nearest treaty port to Pekin, and samples were shown of household coal, and also of coal of an admirable quality for steam purposes, brought from a mine among the hills. The mine is situated at a considerable distance, named Chaitang, about 40 miles due west as the crow flies, but little more than 10 miles distant by the circuitous roads of the hilly country. The coal is got from the hill side. The coal at the pit mouth was equal to 16s. per ton, and the maximum quantity that could be raised, with the rude means at hand, about 72 tons per day. At the period of Lieut. Howarth's visit not more than half-a-dozen miners were at work on the variety in which he was particularly interested; and the quantity brought to the surface per day did not exceed 4 or 5 tons, part of which was converted into coke before it left the village for economy of transport. The conveyance was by panniers on mules and donkeys, and the cost per ton at Pekin was 21s. to which 18s. must be added at Tientsin, where English coal of the same quality could not be purchased under 41s. The owners of the mines, when questioned on the subject, expressed themselves averse to the introduction of machinery, as (they said) it would throw the miners out of employment; and they could not be made to see that more men would find work with mechanical means to assist them. They were also disinclined to sell or let the mines, as they already derive a good income from them, and they had been in their families for generations. Such considerations, however, in China as elsewhere have been found to give way to the temptation of dollars; and they may yet prevail with the coalowners of Chaitang.

It was ascertained that there were merchants at Tientsin, both native and foreign, who were prepared to form a company to construct a railway to the nearest port, and work the mines. "If such railway were constructed, it is more than probable that it would not be confined to the carrying of coal alone, as at one point of its course it would approach to within three miles of the southern pass through which all the traffic between China and Mongolia and Russia goes to and fro; and merchants, both native and foreign, would naturally avail themselves of the facilities it would offer." The mines of Chaitang are worked in a primitive manner. The seams crop out on the surface, and dip, in some places, at an angle of 60° or 65°. The shaft is driven through, and rough steps are cut on the incline, protected on their edges by rounded wooden battens, fastened from side to side of the pit. These also facilitate the progress of the shafts, shod with iron, in bringing the coal to the surface; besides what is carried by the Chinese sling-pole with baskets on men's shoulders. When the mine gets flooded (which frequently happens) the miners patiently and laboriously bring the water up in buckets; and if their endeavours cannot overcome the flood, the pit is abandoned and another opened. In like manner, when fire-damp occurs, there is no means of carrying off the dangerous gas; while the lamp is open, and of the rudest construction; so that accidents are of common occurrence, and the best working mines have to be given up on account of the presence of fire-damp or other dangerous gases. Owing to all these drawbacks, but a small fraction, therefore, of the available coal in any of the pits is brought to the surface; while from all that could be ascertained as to the extent of the coal, it seemed to be practically inexhaustible. The miners are not constantly employed at the pits, but leave them for field-work in the hot season, when the demand for coal has almost ceased. They are just the ordinary labourers of the neigh-

bourhood, with no special skill for their work, which they do not resume until the harvest is secured. They are paid either by the day or the quantity, and the average daily wage is about 8d. The Lanhoo coal, reaching Tientsin by water-carriage all the way, is sold at 27s. per ton, or 18s. less than the Chaitang; but the latter is worth all the difference. The result of Lieut. Howarth's enquiries and observations are that he has been able to report to the Commander-in-Chief that coal of a satisfactory quality, and inapparent unlimited quantity, can be procured at two places at least in the mountains to the north and west of Pekin; that the coal is obtainable at Tientsin or Taku at a cheaper rate than any other coal of corresponding quality; and that it is more than probable a moderate investment of capital, backed by European skill and energy, would so far cheapen the cost of carriage as to make the conveying of the coal to other parts of the seaway of China a profitable speculation.

#### IRON MANUFACTURE IN FRANCE.

The development of the iron trade in France has long been materially impeded through the absence of cheap coal, but it is now thought that by availing of the advantages of an unlimited supply of coal secured by the Anglo-French treaty, the manufacture of coal-iron, especially upon the coast of Normandy, may be made to take a prominent position amongst the manufacturing industries of the country.

It is proposed to commence operations at Diclette, near Cherbourg, and with this view the property of "the Dialecte Magnetic Iron Ore and Cherbourg Ironworks (Limited)" has been carefully inspected by Mr. Joshua Richardson, C.E., of Neath, and from the elaborate report presented by him, the merits of the property can be at once judged of. Diclette is fifteen miles south-west from Cherbourg, and the French Government contemplates constructing a harbour of refuge there, and connecting it with the railway system of France. The concession, which is 1000 acres in extent, has been granted to Mr. A. B. Berard by the Imperial Government, at the nominal rent of 36frs. per annum, and is free from all other rents and royalties. Mr. Berard has also purchased 6 acres of freehold land at Cherbourg, for the erection of blast-furnaces, rolling-mills, &c., to convert the ore into pig and malleable iron. Mr. Berard will transfer his rights to the company for 50,000fr., and of this he will take three-fourths in paid-up shares, and pay all the preliminary expenses. It is estimated that the profits upon the proposed capital of 100,000fr. will be equal to 25 per cent. per annum.

According to the report of Mr. Richardson, the concession applies only to the iron ore to be extracted by regular underground workings, the layers near the surface belonging to the surface proprietors. Mr. Berard has informed him that the concession is 8½ kilometres in length, or 2½ miles, and 1200 metres, or nearly ¾ mile, in width, which gives an area of 1009 acres. But a comparatively small portion of this area, however, yields iron ore. It does not exist in beds or strata lying approximately horizontal, like coal or stone, but has been deposited in veins which incline dip towards the centre of the earth at an angle of about 70°. But a small portion of the surface area, therefore, is occupied by these veins, even when their mineral resources are immense. These veins resemble those from which lead, copper, tin, and other metallic ores are obtained, and may be easily and profitably worked. The whole of the veins are submerged at high water, and although left dry at half-tide, but a comparatively inconsiderable quantity of ore is workable on the surface; yet sufficient ore may be thus obtained at a low cost to yield a large supply during the construction of the requisite works. There are some portions of the veins which are covered with water at the lowest tides, yet there can be no doubt as to their continuity by those who are conversant with such subjects. He entertains no doubt whatever of it; and if any proofs be wanting, they may be found in the fact that the west vein may be plainly seen under the water for a considerable distance, and that it again emerges to the surface in the island of Jersey, which is in the line of its direct course at Diclette.

Specimens of the ore have been analysed by several French chemists, as well as by Messrs. Johnson and Matthey, J. S. Merry, and Dr. Percy, and the average results showing 54 per cent. of iron, and 46 per cent. of silica. Mr. Richardson remarks that the circumstance of these veins being on the sea-shore, within high-water mark, and portions of them being entirely submerged, whilst others are only uncovered by water when the tide is low, may be viewed by some persons not conversant with such subjects as presenting serious difficulties in the construction of the works, and in uninterruptedly pursuing mining operations. He considers that pits may be sunk in close proximity to the veins, and about midway between the high and low-water marks, or at a short distance above high-water mark. There is no question but that it is highly advantageous that the pits should be as near as is practicable to the underground workings; but, after maturely considering the subject, he believes that these advantages would be more than counterbalanced by the constantly recurring damage to which all sea works are exposed, and which cannot be altogether prevented even when the best known precautionary defences are adopted. In this instance, not only the pit bank, but the railway communicating between it and the shore or harbour, would be exposed to the full force of an occasionally stormy sea; and although, were this site adopted, the expense of at least 250,000fr. in the construction of sea defences would be indispensable, it is, in his opinion, in vain to hope that such works could be carried on uninterruptedly, and without occasionally being seriously damaged. Mr. Richardson recommends a single-bratticed shaft, 100 feet deep and 11 feet diameter, and a pit bank on surface 10 yards in height. The estimate puts the cost at 38,500fr., to which, should it be found compulsory to have a second shaft, 2500fr. would have to be added. He concludes by observing that, after the most mature consideration, he is strongly impressed with the conviction that if this enterprise be conducted with ordinary skill and good management, and that the investment be capitalised and repaid for all its requirements, it can scarcely fail of being highly remunerative.

#### THE MINERAL RESOURCES OF VICTORIA.

Reference has already been made in the *Mining Journal* to the issue of the Mineral Statistics of the colony for 1865, and we have now been favoured by Mr. R. BROUGH SMYTH, the Secretary for Mines, with a copy of the paper presented to both Houses of Parliament bearing upon the subject. The paper contrasts most favourably with the statistics of mining progress issued in this country, yet it is shown that the cost of supplying the public with the information, although collected in Australia, where the value of labour is considerably higher than in England, is not less than 92s. 2d. per copy, for compilation, and 54s. 2d. for printing.

In his introductory memorandum the Minister of Mines (Mr. J. F. Sullivan) observes that the Mineral Statistics for 1865 contain more useful information and are in every respect more complete than those which have been presented to Parliament in previous years; he expresses his satisfaction at being able to lay them before Parliament on March 10, as by this means the information contained may be turned to useful account before the condition of the miners and the operations to which the statistics relate have undergone important changes. There has been, according to Mr. Smyth's report, a decrease of only 183 in the number of gold miners. More attention seems to have been given to quartz mining, for whilst there is a decrease in the mean number of alluvial miners of 2498, compared with 1864, this has been nearly compensated for by the increase of 2315 in the quartz miners. Last year attention was directed to the increase of the number of quartz miners, and a table was given, showing that the number of persons employed in this branch of mining had not during a period of six years departed largely from the mean. The increase in the numbers this year is, however, larger than usual. It is probable that many are employed in opening mines in which gold has not been struck and prospecting, for the earnings of this class are not so large as they were last year. The earnings of the alluvial miners is shown to average 66s. 16s. 3d. per man per annum, and that of the quartz miners is 101s. 10s. 5½d. per man per annum. There is no great change in the number of Chinese miners (about 21,000). Comparing the tables relating to machinery used on the gold fields with those of past years, there is reason for congratulation. The steady increase in the number of steam-engines, and the gradual disuse of the less efficient machines for crushing, hauling, and pumping, show that the capitalist is slowly, but surely, overcoming those obstacles which have hitherto retarded the progress of the Victorian mines. In connection with alluvial mining there were employed 441 steam-engines, winding, pumping, puddling, &c., in 1864, in the aggregate of 6891 horse-power; whilst in 1865 there were 475 engines, of the aggregate of 8208 horse-power. In 1864 there were connected with quartz mining 447 steam-engines, of 7746 horse-power in the aggregate, and 4575 stamp-heads; and in 1865 there were 491 engines, of 8606 horse-power, and 119 stamp-heads. The subjoined is the summary of the quantity and value of the metals and minerals raised in the colony from the first discovery of the gold fields to Dec. 31, 1865:—

Gold	39,988,071 ozs.	£123,992,284
Tin	2,385 tons	179,066
Antimony	2,114 tons	25,368
Kaolin	1,757 tons	7,028
Coal	1,933 tons	2,899
Silver	10,165 ozs.	2,795
Fluorine	1,500 square yards	600
Lignite	235 tons	205
Slates	45 tons	180
Sapphires		150
Diamonds	79 carats	79
Total		£124,210,654

The details of the gold production are very fully given, and as the average yield of gold, cost of crushing, and price of gold in the several localities are shown, as well as other particulars of general interest to the miners, the return is of great practical value. With regard to the progress made in the development of metalliferous minerals, coal and lignite, clays, slates, and miscellaneous minerals, Mr. Smyth reports that the greater part of the silver which has been melted has been obtained from the chloroborates which occurs at St. Arnaud, with iron pyrites, galena, ores of copper and native copper, cerussite, anglesite, nomete, &c. No important discoveries of silver ores have been reported to the department during the year. The drought severely interfered with the operations of the miners. In the mining district of Beechworth Stream tin occurs in many places—in the beds of the tributaries of the Yarra, the Thompson, and the La Trobe. It has been found also at Taradale and Strathbogie. It is believed no veins have yet been discovered. An export of 30 tons of platinum is mentioned in the Customs House returns, but it is believed that it was not the produce of Victoria. Native copper occurs at St. Arnaud, Speelman Gully, Castlemaine, and on the River Thompson, associated with other ores of copper. Blue and green carbonates of copper and copper pyrites occur in small quantities at Steiglitz, Castlemaine, Blue Mountains, Bendigo, St. Arnaud, Ingleswood, Dunolly, Gipps Land, &c. Cuproplumbite is found at M'Ivor. The vein of copper found near the River Thompson, in Gipps Land, has been to some extent explored, and it is said that in some places it is 15 ft. thick; sulphides, black oxides of copper, and native copper have been obtained from the locality. The blende and molybdenum disseminated do not seem to have been worked. Of antimony ore 729 tons were produced in the year. In connection with coal and lignite nothing of a practical character has been done—no coal and only 35 tons of lignite having been obtained during the year. Of kaolin and other clays 62 tons were obtained. Slates are receiving some attention. Five companies are now in work—the Chetton Flaggings and Slate Company raised about 1200 yards of flagging; the Golden Point Company obtained 300 yards; the Victoria Company, just commenced 1000 slates; the Penrhyn Company got out about

43 tons; and the Moorabool have expended about 2000s., and will shortly place flagging and roofing slate on the market. The miscellaneous minerals comprise only the diamond and sapphires, already referred to.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

AUG. 30.—The position of the Coal Trade at the present moment is something wonderful, taking into account the very depressed state of the Iron Trade. The house coal trade never was better at this season, the London market being the main outlet for the best coal produced on the Tyne and Wear, and the price received is good for the season. The export coal trade, which is almost exclusively steam coal, continues excellent, and this is partly accounted for by the stoppage of some of the coal mines on the Continent, owing to the war. With respect to the coke and the gas coal trade, although a little dullness has been met with in some quarters, on the whole there is little to complain of. An interesting meeting was held at the Ouston Colliery, in connection with the Miners' Relief Fund, on Saturday. Addresses were delivered by Mr. Taylor and Mr. Blyth, secretaries of the fund. Mr. Jos. Greener, the local secretary, read the report, which stated that since the commencement of the society the number of members had averaged 150, and they had forwarded to the general fund 160l. 8s. 2d. The owners of the colliery have paid 20 per cent. on the sum subscribed by the men, and the fund is in a most flourishing condition. This fund continues to progress well throughout the district; the men evidently are awaking to its many advantages, and are supporting it accordingly.

The state of the Iron Trade has not changed much since last week, although there is certainly a greater disposition manifested to get to work by the men, and the masters also are more anxious to get matters settled. A considerable number of the men have gone to work, most of them being underhands, but the main body still hang back, although the masters appear not to have the slightest intention of starting the men at any less reduction than 10 per cent., and cases have occurred where the men have gone in at a much greater reduction than this. But the majority of the masters intend to adhere to the terms first proposed—a general reduction of 10 per cent. This refers to the millmen and puddlers, and makers of finished iron generally. With respect to the blast-furnacemen the case is different; these men are rapidly going in at a reduction of not less than 18 per cent. Messrs. Bolekow and Vaughan, at Middlesbrough, have arranged with their men on these terms, that is at Eston Furnaces, and the same arrangement has been made at the Clay Lane Works. Messrs. Hopkins, Gilkes, and Co. have started their furnaces, and the men have accepted the reduction. The workmen at Messrs. Cochrane's have also resumed work on the same terms, and it is unnecessary to remark that the whole of the works—that is the smelting furnaces—will soon be in active operation, and with respect to the workers in finished iron, they cannot hold out much longer. Now that money is abundant and cheap, the trade and commerce of the district will rapidly recover its healthy state.

A strike has lately terminated at the Ellenborough Colliery, near Maryport, of eight weeks' duration, the men having turned out for an advance of price. They have not, however, succeeded in getting this, but have returned to their employment at the old prices—that is, so many of the hands as the masters choose to employ. The coal trade in Cumberland is pretty good, and with the exception of the strike alluded to, all is going on well and peaceably; the men are earning good wages, very similar in amount to those earned in Durham—from 4s. to 7s. and upwards per day.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

AUG. 30.—The Iron Trade is mending somewhat under the favourable influence of reduced rates of discount, but the improvement is slow, and experienced only partially. Time is required to set on foot undertakings delayed from the pressure which the credit panic imposed, but there are signs of amendment, which it is hoped may soon find ample development. It is strongly urged that a reduction of wages is absolutely necessary to a recovery of trade, that the competition in Belgium and South Wales, where wages are low, is so severe that Staffordshire finds it hard to hold its ground, and the number of those who are advocating a reduction of prices and wages at the next Quarterly Meeting is increasing. It is certainly strange that the cessation of the North of England works should have produced so little addition to the scanty orders received here. The improvement in North Staffordshire is, perhaps, more marked than in the south of the county.

The failure of Mr. John B. Dickinson, of Wolverhampton, is reported. Mr. Dickinson is offering 10s. in 12, payable in instalments extending over a period to Dec. 1, 1867. Mr. Dickinson has not been directly engaged in the iron trade, but has been concerned as a commission agent, and when Mr. Thomas Rose, of the Millfields Works, failed some weeks ago, was found to be a creditor to the amount of some 15,000s., and was, with Mr. J. C. Harvey, of North Staffordshire (who has since also failed), made assignee of Mr. Rose's estates. The assents of creditors to Mr. Dickinson's proposal are being sought.

In the case of the sad accident in a pit near Wednesbury, noticed last week, it appears that the gas proceeded from a vein of coal through which the shaft passed, and which had not previously been known to exhale gas. This shows how important it is always to test with the lamp before work is begun; and it is understood that an alteration in the rules, with a view to render this imperative in all cases, is about to be proposed by Mr. Baker, the Government Inspector of South Staffordshire.

#### STEEL GUN BARRELS AND ORDNANCE.

An invention, which seems likely to prove of great value, is being just now brought before the notice of the country, though it has for some twelve months been known in South Staffordshire and in other parts of the kingdom. It consists essentially of a new method of producing steel tubes without a weld, which is not practicable in the case of steel, yet by a far less expensive plan than boring out, which has hitherto been the only means of producing a steel rifle barrel, having a commercial value. The great cost of this plan is apparent. The machinery must be exceedingly accurate, and the boring out cannot but be a very slow operation; hence the great mass of existing gun-barrels are made of iron, and are welded, but this has only been adopted on the failure of all previous attempts to produce a steel barrel at anything like a moderate cost. Attempts have been made both in this country and in Belgium to produce a gun-barrel from a cast-steel hollow cylinder, but after long-continued and most costly experiments the inventors have failed to secure the strength which it was the main object of adopting steel to obtain.

Messrs. Deakin and Johnson, of South Staffordshire, are the patentees of an invention which effects this object by a simple yet most effective process. A block of Bessemer steel is perforated by punching, a mandril is introduced into the hollow, and the block drawn out between rolls into the necessary length, diameter, and thickness. In effecting this it is a very important element in the process that the very first operation applies a most searching test to the quality of the metal used. The force employed to perforate a solid block of steel necessarily produces a great expansive strain, and any defect in the steel is sure to manifest itself by cracks on the outer surface. The block, after being perforated, is allowed to cool, and is carefully examined for such cracks, and these are cut out if shallow, or if deep the piece of steel is rejected. Thus, a strain is at once applied to the material of the tube which is calculated to develop any latent defect, and the rolling which follows this severe proof of strength tends to improve the steel, to increase its tenacity, and its homogeneity of structure. Barrels made in this way have been tested at Enfield; at Springfield, in the small arms manufactory of the United States; at Liège, in Belgium, and at other places; and the verdict is in every case that no such barrel has yet been produced. The United States Government have adopted the barrel, and are only delaying their orders for it on account of their not yet having finally decided upon the form of breech-loader they will employ, and it has been approved by many of the leading gunmakers in this country and elsewhere. The barrel may be either perforated for the whole length, or a solid lump left at the breech, and rolls have been made which permit of barrels with a closed end being operated upon.

So far we have spoken of the invention as applicable to the pro-



duction of a rifle barrel, but it is by no means limited to this purpose. At an early period in the experiments by which, after an amount of toil and thought, and cost which no one but those who have perfected the first idea can estimate, it has been brought to its present state, it was felt that the solution of the difficulty of making a really strong piece of ordnance was to be found in the new invention. The ingenious fabrication of guns by welding vast coils of iron over longitudinal bars is liable to the imperfections which must attend such numerous joinings of metal, every one of which must be perfect, whilst the metal employed in this way must be iron, and not steel. Again, a cast-steel gun is necessarily defective, because only the outer part of the vast mass of metal can, by manipulation, have its actual strength developed. The inner portion must remain in the spongy state of cast metal, the hammer not being capable of producing in the interior particles that cohesive force of which steel, after proper manipulation, is capable. If the new method of producing steel tubes were found applicable on a large scale, it was evident that a large steel tube could be produced and manufactured so as to develop to the utmost the strength of the metal, and by placing such tubes one upon another a piece of ordnance might be secured with the utmost conceivable elements of strength, and with the absence of the known liabilities to flaw.

John Brown and Co., of the Atlas Works, Sheffield, well known as rollers of enormous armour-plates, undertook the application of the invention to this purpose, and it is stated that already results of a most satisfactory character have been achieved there, and that soon an opportunity will be afforded of witnessing the application of the invention to the production of a large gun. The inventors are likewise applying their patent to the manufacture of hollow shafting for machinery, and tests of the strength of the hollow cylinders thus formed have produced astonishing results. It must be clear, from the nature of the process, that it is inexpensive; and it is said that steel barrels can be made in this way at the price of the ordinary welded iron ones. When we consider how largely iron is employed in the construction of machinery as well as fixed erections, and how important it is to combine the greatest possible strength with the least weight, the uses to which steel tubing, produced at a low cost, is applicable can scarcely be over-estimated. Its suitability for shafting will be obvious, but it is scarcely possible to conceive a piece of construction to which it would not afford the means of improvement. Take a carriage of any kind as an illustration. The union of lightness and strength which may be effected by the use of steel tubing in the construction of a vehicle is evident at a glance, and there seem no limits to the use of an invention which so effectually combines cheapness with excellence. The patentees are Mr. W. Deakin, of the firm of Messrs. Deakin and Dodd, of the Monner-lane Ironworks, near Willenhall, in South Staffordshire; and Mr. J. B. Johnson, of Wolverhampton, well-known as a manufacturer of rolls, and who has supplied the enormous trains of rolls with which John Brown and Co. have produced their celebrated armour-plates, as well as those with which the steel tubes for ordnance are to be rolled at that works. The invention has been secured by patent in this country, in the United States, and in almost every country in Europe.

#### REPORT FROM SCOTLAND.

GLASGOW, AUG. 29.—The lowering of the rate of discount has supplied an amount of floating capital which the anticipated further reductions will augment. More animation is perceptible in the metal market since the reduction, and the fact that considerable orders have been received from the United States and Canada is expected to give a tone to the future of our market. As a consequence, warrants for g.m.b., which were weakish last week, even after the Bank rate of discount was lowered, have gradually advanced from 52s. 6d. up to 53s. 9d. prompt cash, and the tendency is to higher rates, under the influence of a tolerably fair autumn shipping demand, and the known diminution which has taken place in stocks. The ironmasters have generally taken advantage of this "blow-out" to overhaul and repair efficiently their whole series of furnaces not in blast, so that they could be re-lighted and vigorously worked without delay in the event of a demand springing up, and a few new furnaces will go to swell the list. The shipments of pig-iron for the week to date are 13,950 tons, and in the corresponding week of last year there were 15,980 tons, which makes a deficiency on the week of 2030 tons, and which, when added to the former, makes the decrease on the year amount to 58,830 tons, or about half the amount taken from store, and consequently from stocks, to supply the demand for warrants. To-day a fair business was done at 53s. 4½d. and 53s. 6d. cash, closing, sellers, 53s. 7½d.; buyers, 53s. 6d. The absence of orders for manufactured iron throughout all the iron districts is being participated in here, and in some departments not a wheel has been turned for nearly three months. This can be accounted for to some extent by the fact that shipbuilding is not nearly so brisk as it has been for some previous years, but it is also well known that our shipping orders have been on a more limited scale than usual. However, the orders for autumn shipment are to a fair extent, and with cheap money they would be most likely increased. First common bars are quoted at 87s., and inferior qualities at from 77s. 12s. 6d. to 77s. 19s., but we know that some small makers have taken even less than our last quotation. The Blochairn Works, after remaining idle for several weeks, are about to commence operations under the charge of a new company. Ironfounding is still profitable, but there is a paucity of orders.

At the examination of M'Ewen, Bryson, and Co., metal brokers, here, it appeared that at the end of April the firm had 36,000l. at their credit, but from that time until July 31 they had accumulated a debt of 195,000l. The deficiency was accounted for—1, by speculation in pig-iron, 90,000l.; 2, bills receivable, including endorsed bills, claimed against the firm on account of the insolvency of other obligants, 71,300l.; 3, bills payable, which should have been realised by drawers who had become insolvent, 23,700l. These three items give total losses to the extent of 195,000l. Deducting 120,000l. from this sum, there is a remainder of 75,000l., the capital of the company, had no losses been sustained. As the accounts had not been completed, the trustee did not feel himself in a position to state how certain matters stood, and the examination was adjourned with the consent of the creditors. No hint as to composition has yet been given, nor is it expected for some time, as the transactions have not yet been fully explained by the trustee.

Coals are coming into demand for the autumn shipments, and will be pretty brisk up till the closing of the Baltic. Stocks being scarce, the supply is by no means superabundant. The price is unchanged, but there are fears that an increase is imminent. The miners seem set on carrying on the agitation, and keeping down stocks by their dogged idleness. At a conference of miners held on Monday, at Anderson's Tavern, Trongate, Glasgow, it appeared that the majority of the men in the Lanarkshire and Ayrshire districts were receiving the 4s. 6d. per day, and a good number of them were working long hours. The meeting was of opinion that, considering the present state of things in the commercial world, the reports were highly satisfactory. Resolutions were then proposed, and carried unanimously, recommending assistance by the Lanarkshire miners to their brethren on strike at Russell's Works, Hamilton district, and advising miners to abstain from aiding the employer in his contest with the men. Mr. Russell has since given in, and is paying 5s. per day, along with some others. It was also resolved to appoint an executive committee to transact national business during the indisposition of Mr. McDonald, general secretary; and to recommend that a testimonial, subscribed to by all the miners of Scotland, should be presented to Mr. McDonald that day month.

The shipments of coals, notwithstanding this very unsettled and unsatisfactory state of matters, are, for the week ending yesterday, 24,960 tons, as compared with 23,460 tons last year. There are hopes that the miners will see it to be their duty to work full time, and six days in the week, or else we shall have to send elsewhere for coal during the winter months, or curtail our export trade, and if it is once away it may have to be sought back again when it will not come.

The realisation of the scheme for gathering together the various railway lines into a central terminus is progressing with speed, and were the patron Saint of the city—old Saint Mungo—to revisit the scene of his labours for a day, the transformation would madly bewilder his reverend brain. In effecting this object, new and singular mechanical appliances have been utilised. In shooting across the Clyde from the south to the general terminus this line is carried by a bridge constructed on the "lattice-girder" principle, and of great beauty of design. Notwithstanding its necessarily enormous strength, in appearance it is light and graceful. The structure will be 375 ft. in length, a distance attained by five spans of 75 feet each. These spans are to be supported at their junction by handsome octagonal towers of dressed freestone, forming, as designed, fitting supports for the graceful-looking beams. As is now customary in works of this nature, foundation is found for the piers by means of iron tubes sunk through the soil until the desired solidity is obtained. In the Clyde a depth of 85 ft. under high-water mark has to be reached before a good bottom is found; but at this depth solid rock is got, so that the railway bridge stands securely on the foundations of the world. The ordinary process of sinking iron tubes as supports for piers is too familiar to need repetition; but in this case an entirely novel system (brought to perfection, we are informed, by Mr. Milroy, the contractor) is adopted, by which the sinking is effected at from 10 to 12 ft. daily—

a vast improvement on the former rate—and carried out with a great saving of labour and expense. The apparatus employed could scarcely be thoroughly understood or appreciated without the use of drawings in aid of the letter-press. It may, perhaps, be best described as a gigantic iron claw or talon, fitting the interior of the iron cylinder, and capable of being opened and closed, by means of simple but effective machinery. Lowered by a chain, with claws open, it digs its way down through the earth until a sufficient quantity of soil is within its grasp. The claws then close, and bearing their burden firmly in their grasp, are raised above the cylinder to where a railway takes a truck ready to receive the load. A pull given to the chain is sufficient to open the claws, their burden is discharged upon the truck, which is wheeled away at once to unload its cargo; the open claws are lowered, and the operation is again repeated *ad infinitum*. When the cylinders are sunk to the level of the rock they are filled in the first place with concrete, to within a certain distance of the top, and then finished up with brick to where the freestone towers are placed. The erection is progressing fast, under the personal superintendence of Mr. Crouch, engineer.

A UNIVERSAL PROPORTION TABLE.—Dr. Everett, assistant professor of Mathematics in the University of Glasgow, has published a Universal Proportion Table, enabling the operator to perform by inspection, with greater accuracy than is generally required for commercial purposes, any example of multiplication, division, proportion, or extraction of square root, either of whole numbers or decimals.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

AUG. 30.—Trade generally continues good, and it is worthy of note that the great depression in the Iron Trade during the last three or four months has been less felt in Derbyshire than in almost any other part of the country. The vast works at Staveley, in particular, having been kept fully going. The increased demand for coal, which has characterised all colliery districts, has been fully participated in at Clay Cross and the neighbourhood. The new collieries now opening out are pushing their works forward with rapidity, and the quantity of coal sent by the Midland promises at the commencement of the next year to be unusually large, more especially for the London market. The lowering of the Bank rate to 7 per cent. has had the effect of giving no inconsiderable impetus to the Sheffield trade, where, in addition to the increase in the home trade, orders from America and Australia are coming in more freely. Makers of Bessemer steel—the price of which continues large—are also kept fully going; Messrs. Cammell and Co., in particular, turning out a large quantity weekly. In South Yorkshire there is a marked improvement in the iron trade, and at the extensive works of the Messrs. Dawes, at Milton and Elsecar, there is a fair amount of business being done. The patent furnaces of Mr. E. B. Wilson are now being worked, and the men have not shown so much opposition to them. On visiting the works at Milton, on Monday, the furnaces were at work, and there appeared an entire absence of anything in the shape of ashes. During the week some slight improvements have been made in the furnaces, so that the standing places will be quite cool, and thus, in fact, obviating every objection taken by the men. On Wednesday the patentee informed me that the millmen were satisfied with their furnaces, and he was in the expectation that he would shortly see the works and Milton entirely smokeless—a consummation to be devoutly wished for. Mr. Wilson is now busily engaged in altering the old furnaces to the patent principle, as the Messrs. Dawes, as previously stated, are determined to have all the furnaces at Milton and Elsecar altered by that gentleman. As the patent can be applied to furnaces of every description, and grates, the extension of the patent to ordinary works as well as to puddling-furnaces would appear to be a mere question of time. There is a good business being done in South Yorkshire for nearly all qualities of coal, and the Great Northern is now taking a large tonnage to London, and the drops *en route*, of Silkstones and Barnsley "softs." The export trade from Hull and Grimsby to Holland and the North of Europe is fully up to the average, and is on the increase. Slack and smudge for coke-making and engine purposes are in good demand, a heavy tonnage being forwarded daily to the iron and cotton manufacturing districts of Lancashire.

Amongst the patents recently obtained in connection with the manufacture of steel, iron, &c., few, in one simple branch of the trade, have caused a revolution greater than the machine brought out by Mr. FARRAR, of Barnsley, for making Crucibles for Melting Steel, &c., and which are being sent out as fast as made. The saving effected may be judged from the fact that by hand it takes 20 men and 30 boys to turn out 600 crucibles per day of 10 hours; whilst the machine with seven men can make 1000 in the same time. By hand the crucibles cost from 2½d. to 3d. each, whilst those made by the machine, and which will stand twice the quantity of work, can be made for about 0½d. each.

Mr. DOBE, of Barnsley, formerly a driver on the Manchester, Sheffield, and Lincolnshire Railway, has just perfected his patent for improvements in the Permanent Way of Railways, which promises in various ways to become invaluable to railway companies, where durability and consequent economy are considered. The invention relates to a peculiar construction of the chair, and a method of securing and supporting the rails thereby. Each chair is constructed in two parts, one forming the bottom, and one jaw with a projection for the other jaw to be fixed to it by a pin, bolt, collar, or other similar means, in such a manner as to become an abutment to the loose jaw. The two jaws are to be so formed as to fit in between the flanges on each side of the rail, but clear of the lower edge of the rail, so that the rail is supported by the top flange resting upon the two jaws. The flange being, therefore, kept clear, or out of contact with the chair, abrasion or cutting into the face of the lower flange is avoided, and, consequently, when the rail is worn out on the top flange it may be turned over for further use, as the lower flange is not damaged, as heretofore, by its action against the chair.

The dispute in the Darfield Main Colliery, near Barnsley, has terminated, the men having given up the absurd idea of compelling the masters to force men to become members of the Union. After being out for a week work was resumed on Thursday. The disagreement at North Gawber has also been arranged, so that the entire district is at the present time free from all interruptions to trade. How long it will remain so it is hard to say, as for some considerable time past scarcely a week has elapsed without bringing with it some incident resulting in a stoppage of work.

An inquest was held at the Sheffield Infirmary on the body of Robert Gillings, who had been killed by an explosion of gunpowder. The only witness examined was another miner, Peter Schofield, who was himself severely injured by the same explosion. It appeared that Gillings was in the Aldwark Main Pit, and Gillings inserted a charge of powder in a drilled hole where he desired to remove a part of the rock. This train was fired, but the charge did not explode, and if the men had acted in accordance with the printed rules they would have "drowned" the charge, and drawn it in a manner with which they were perfectly well acquainted. The general rules expressly laid down that a "shot which has missed fire must not be drilled out." In defiance of this warning and the obvious danger, Gillings began to remove the charge with the steel drill, and he told Schofield not to be alarmed, as he would warn him of any danger. Schofield was "churning" the charge with the drill, and Gillings kneeling in front of the hill, when the powder exploded, with shocking results. Both of Gillings' arms were broken, and he was otherwise very seriously injured. Gillings has lost one eye, and the loss of the other is almost certain, and the explosion severely scorched the arms and the upper part of his body. The men were removed to the Sheffield Infirmary, and Gillings' arms were both amputated. He repeatedly admitted that the accident was solely due to his own carelessness. He had boasted shortly before of having blown tons of powder away, but experience had not taught him caution. The Coroner briefly commented on the recklessness of miners, which had been reproved until the topic was threadbare; and the jury returned a verdict to the effect that the deceased was killed by an explosion, which resulted from his own negligence.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

AUG. 30.—The improvement noticed last week continues to characterise the Iron Trade of this district, but as yet the reduction in the rate of discount has not produced any material amount of activity, so as to affect operations throughout the district. In fact, this can hardly be expected, as it naturally must be a work of time; but sooner or later there is no doubt that business will resume something like its former healthy tone, and indications of this have already appeared. The crisis has been so severe that hardly sufficient breathing time has been allowed for parties to look around them, and as it is expected money will become still cheaper, many who can afford to do so are delaying giving out orders, waiting to see the final result of the present downward movement. At some of the works in the district the men are pretty well employed, and much regret is generally felt at witnessing so many of them breaking up their homes to seek for themselves and families "fresh scenes and pastures new" in the United States. In consequence of this movement, and the large demand for labour at the steam collieries, the

number of men lying idle from the recent reduction in the make is not near so great as a few weeks since, and should there be an active fall trade, as anticipated, makers will have to seek hands from a distance to enable them to carry on operations with anything like activity. In the home trade there is more animation, and the few transactions entered into are indicative of what is to follow, and it is well known that both merchant and English railway companies are sadly in want of iron. Some orders have been received on American account, whilst large quantities of rails have been cleared out at the ports of New York; and if dependence can be placed on the advices received, the demand will be greatly increased as the autumn advances. One of the large orders on Eastern account, spoken of in last week's Journal, has made its appearance in the market. It is from the East Indian Railway Company, for 27,500 tons of rails, 7000 tons of chairs, &c., and it is hoped the whole, or the greatest portion of it, will be secured for this district. There is no alteration to note in business with the other markets, but the requirements of the Continent are so pressing that it would not be surprising to find, in the course of a few days, proposals for tenders for considerable quantities of railway iron from that quarter. In pig-iron, cold-blast make is in slightly better demand, but other descriptions are dull; no alteration in quotations. Tin-plates are selling tolerably well, and the works are fairly employed. Activity still characterises the steam coal trade, and the collieries are in full operation. The foreign demand keeps up, whilst the enquiry on inland account is becoming greater. House coal is in good request on coasting account, but the local consumption has not increased since this day week.

The Neath and Brecon Railway is intended to be opened for traffic on Sept. 13. It will open an extensive mineral district, and will complete a direct railway communication between Llanelli and Swansea, and Liverpool and the North of England.

On Tuesday Mr. J. Wright, colliery proprietor, of Swansea, applied before Mr. Registrar Wilde, at the Bristol Bankruptcy Court, for his discharge. Mr. Henderson appeared for the assignees, and, after a brief examination of the bankrupt, stated there was no objection to his taking his discharge. The discharge was, therefore, granted.

The partnership existing between Mr. William Williams and Mr. Leybourn Rhys, colliery proprietors, Hlwrhwa, Aberdare, has been dissolved.

The condition of the Cornish and Devon miners is beginning to attract public attention. In consequence of the stoppage of the tin and other mines, thousands of hands have been thrown out of employment, and for some time past their condition has been most pitiable. Fortunately, the stoppage of the mines has had the effect of reducing stocks, and of sensibly affecting the tin trade within the last two or three weeks; and, as there is a prospect of a number of the mines being again started and worked profitably, a large number of the men will be once more in full employment. There is also at the present time plenty of work for them in South Wales, where by industry and perseverance they can earn more wages than in Cornwall. In consequence of the large demand for Welsh coal, and the mania for emigrating which has seized the Welsh miners, there is room for hundreds of men anxious to earn their living by honest industry. In reference to this subject, Messrs. David Davies and Co., of the Ocean Steam Coal Collieries, Rhonda Valley, write:—

"Cornwall is too populous by half—the balance must be reduced either by starvation or emigration. The workmen of Cornwall need not be reduced to either of these alternatives. There is at this time in the mining districts of South Wales an abundant source of employment. Experience has shown that the miners of Cornwall soon become very efficient colliers and ironstone workers. The earnings of the colliers in these districts are now from 25s. to 30s. a week, and good steady workmen can get even more than that. With a little previous organisation, and without any great tax upon the generosity of the country, the whole surplus population of Cornwall may speedily be placed in highly remunerative employment. We shall be glad to give any assistance we can in furtherance of such a movement."—DAVID DAVIES AND CO.: Ocean Steam Coal Collieries, Rhonda Valley, South Wales.

At the Coleford, Monmouth, and Usk Railway meeting, on Monday (Mr. Crawshaw Bailey, M.P., in the chair), a dividend at the rate of 3 per cent. per annum was declared.

The Monmouthshire Railway and Canal Company directors recommended at the forthcoming half-yearly meeting a dividend at the rate of 6 per cent. per annum. The previous dividends were at the rate of 6½ per cent.

At the Gloucester Wagon Company meeting, on Tuesday (Mr. R. Potter in the chair), the directors' report showed the stock of the company to consist of 7062 narrow-gauge wagons, 30 broad-gauge wagons, and 92 narrow-gauge carriages and break-vans. After providing for the redemption and maintenance funds, the directors recommended a dividend to be declared at the rate of 10 per cent. per annum, leaving a balance of 6642l. 13s. 7d. Messrs. R. T. Smith, R. Potter, and E. Boughton were re-elected directors; and Messrs. R. Howe and H. Pike were re-elected auditors.

The inquest upon the bodies of Messrs. Bedlington and Francis has terminated in a verdict of "Accidental Death." It appears that the pit has not been worked since it has been in the possession of Mr. Jones, but Mr. Bedlington visited the pit because he wished to find a fault in it. He went down on the Monday with Mr. Francis, the overseer, and again on Tuesday, when, after being down an hour and a half, an explosion occurred, by which both were killed. In reporting upon the explosion, Mr. T. E. Wales, the Government Inspector for the district, says:—"In my opinion permission ought not to have been granted to any person or persons to explore these old workings under any pretext whatever, until proper steps had been taken to restore the ventilation there, which has since been done. From the evidence it would appear that the two deceased were not only allowed to go down for that purpose (to explore the old workings), but that they were permitted to do so with a lamp without a top, which, doubtless, was intended to be lit; and, moreover, that men had now and again been employed in the 4-feet vein, and the furnace occasionally lighted, but not so on the day the explosion occurred. This certainly proves great want of both care and discipline."

#### FOREIGN MINING AND METALLURGY.

No new affair of any importance has occurred to change the aspect of the Belgian siderurgical market. The only improvement which we have to indicate is the return of a number of workmen to their employment; sickness, which has prevailed a long time in the populous industrial centres, thus appears to be diminishing in intensity. This amelioration is an important one, as some works tolerably well provided with orders began to be affected injuriously by the insufficiency of labour. A new uneasiness begins to pre-occupy the minds of industrialists; this is the advance in the price of coal, which has been increasing for some time past, and which will render the position of metallurgical works not possessing collieries very difficult. The situation of the blast-furnaces has not sensibly improved, as pig is still run off very slowly, a fact in which there is nothing surprising, as the rolling works have not yet regained their normal position. On the Belgian coal markets an advance is still the order of the day. The rapidity with which the rise has been effected has excited some surprise, and it has pleased some of the men who have been greatly displaced others. In the Charleroi basin several collieries, amongst others the United Collieries and the Concelles, submit tariffs, the rates of which are advancing. In the Mons basin the advance is 1d. per hectolitre (19s. 10d.). In the basin of the Centre the Bois-du-Luc Company has advanced its price 10d. per ton; and, finally, at Liège several companies have announced to their clients a similar advance. Enhanced rates have further been agreed to in connection with deliveries of coal required for the State. The production continues relatively restricted, and stocks are insignificant. There is nothing very astonishing in the advance which has occurred, if we consider the great development which has taken place of late years in the industry of Belgium, while the exports to France increased during the first six months of this year to the extent of more than 600,000 tons, as compared with the corresponding period of 1865. All things considered, it may be concluded that the advance in price was inevitable, and that it will develop itself still further. The Belgian General Railway Plant Company held its annual meeting, on Thursday, Sept. 4, at Brussels. The Belgian Compressed Gas Company will meet on Tuesday, Sept. 4, at Marquise. The Grand et Petit Tas Colliery Company, at Warquignies, will also meet on Tuesday, Sept. 4, at Mons. The United Proprietors' Colliery Company will meet on Monday, Sept. 10, at Marchienne-au-Pont. Three other meetings are also announced, as follows:—Lavoir and Blanc-Misseron Mines and Ironworks Company, Sept. 17, at Anvers; Luxembourg Mines and Sarrebruck Forges Company, Sept. 18, at Sarrebruck; and Charleroi Ironworks Company (Victor Gilleux and Co.), Sept. 29, at Charleroi. The quantity of gas sold by the general company for Lighting and Heating by Gas—watch has works in operation at Prague, Tournai, Louvain, Charleroi, Chemnitz, Rimini, and Sienna—amounted during September, October, November, and December, 1865, and January, February, March, April, May, June, and July, 1866, to 157,283,931 English cubic feet, as compared with 138,757,888 English cubic feet in the corresponding months of 1864 and 1865, showing an increase of 18,526,043 English cubic feet.

The directors of the Guillaume-Luxembourg Railway Company have just reported progress for 1865. The directors state that in the general movement of goods the quantity of minerals figures for 430,237 tons, or 1179 tons per day. In 1864, the corresponding movement of minerals was only 975 tons per day; the augmentation established in 1865 over 1864 thus amounted to 204 tons per day, or 21 per cent. This department of the company's traffic appears to be always increasing. The current year shows a sensible further progress, notwithstanding the political circumstances which have adversely affected the traffic. The augmentation in the mineral traffic for the first five months of this year is, in fact, no less than 52,681 tons. The directors add:—"We can only repeat that in the mineral wealth of the Grand Duchy there are all the elements requisite to assure the prosperity of our enterprise."

In France a relative stagnation in affairs prevails in the basin of the Moselle. Orders are scarce, and production is checked by a want of labour. Epidemic disease, which prevails in Belgium, has made its appearance in this metallurgical group, and keeps many workmen



from their employment. At St. Dizier the state of affairs continues tolerably favourable, orders, without being of great importance, being coming in some regularity, especially in sheet and bar iron. Prices of rolled iron are maintained at 81. 16s. to 97., while hammer iron averages 101. 8s. per ton. Re-rolling pig, as well as coke-made pig, has been neglected, and it would be difficult to state quotations; no contract has been concluded for some time in this department. Charcoal-made pig is offered at 81. 9s. 2d. per ton, without the receipt of the Parisian Company for Lighting and Heating by Gas.

The receipts of the Parisian Company for Lighting and Heating by Gas amounted in July to 56,200l., as compared with 52,462l. in July, 1865, showing an increase of 3738l., or 7.13 per cent. For the first seven months of this year the receipts amounted to 628,973l., as compared with 609,451l. in the corresponding seven months of 1865, showing an increase of 28,522l., or 4.75 per cent. Meetings are announced as follows:—St. Eloi (Puy-de-Dôme) Colliery and Railing Company, Sept. 5, at Paris; Longterre-Ferrand Colliery Company, Sept. 6, at Elouges; and Stirling (Mossell) Collieries Company, Sept. 28, at Paris.

An improvement has taken place in the tone of the Havre copper market, where a sensible rise has taken place in Chilean; sales are noted at 79l. per ton, with delivery at the close of October. The upward movement is less decided at Paris, but it appears inevitable that this market will follow the impulse given by London and Havre. The article remains sustained at Cologne and Berlin, and it has increased in firmness as compared with last week; on the other hand, the Hamburg market appears to revive with some directness, and does not participate in the amelioration; prices are maintained at about the same point. At Stettin there has been a demand. At Rotterdam, Drontheim is quoted at 64 fls., and United States at 61 fls. The Amsterdam and Rotterdam tin markets are quiet, and the upward movement in Banca has not yet of a decided character. At Rotterdam transactions in Banca have comprised 200 blocks, at 46½ fls., and 1200 blocks, at 47 fls. The affairs concluded in the Hamburg market are very small, and are limited to the strict requirements of consumption, at the same time prices are firmly maintained. The Cologne market has presented no important features; prices are, nevertheless, sustained. As Berlin and Stettin prices have remained without change, but the markets are irregular. At Paris, Banca is quoted at 85½, and Detroit at 81½. On the Hamburg market, transactions in soft German lead continue to show a slight downward tendency, notwithstanding the small stock existing on the market. The Cologne market for lead has been firm, and transactions are effected at full rates. Berlin has been quiet; transactions are confined to some orders to meet the requirements of consumption. The Paris market has remained without change, rough French lead making 201., and Spanish 204. 8s. per ton. As regards zinc, it may be observed that the Hamburg market has been quiet; nevertheless, in consequence of the firm tone of the market for England, prices have slightly revived. The Bremen market has been inactive, and scarcely any transaction worthy of mention has been noted. Although the navigation is in a favourable state, the market is almost a blank, and the rates maintained by holders are not in rapport with those current abroad. Berlin has also remained without important transactions. Stettin has been feeble.

## THE HISTORY OF THE STEAM-HAMMER.

The invention of the steam-hammer\* marks a new era in the history of mechanical progress, and one that can be but faintly understood by those outside the engineering and mechanical world; it is an invention which has played no unimportant part in the mechanical progress of the generation. How Mr. Nasmyth's attention was first directed to the subject is most graphically told by himself, and published by Mr. Smiles in his "Industrial Biography." It was found that when the largest helve hammer was tilted up to its full height its range was so small that when a piece of work of considerable size was placed on the anvil the most powerful blow it received next to no blow at all, the clear space for fall being almost entirely occupied by the work on the anvil. The obvious remedy was to invent some method by which a block of iron should be lifted to a sufficient height above the object on which it was desired to strike a blow, and let the block fall down upon the work, guiding it in its descent by simple means as should give the required precision in the percussive action of the falling mass.

Following out this idea, Mr. Nasmyth sketched on paper his steam-hammer, which consisted of—1. An anvil on which to rest the work.—2. A block of iron constituting the hammer or blow-giving part.—3. An inverted steam cylinder, to whose piston-rod the block was attached. All that was then required to produce by such means a most effective hammer was simply to admit steam into the cylinder, so as to act on the underside of the piston, and so raise the block attached to the piston-rod, and by a simple contrivance to let the steam escape, and so permit the block to fall upon the work, guided by its own gravity upon the anvil. Such, in a few words, is the rationale of the steam-hammer. But, great as were the merits of the hammer, no force master would take it up. At that time no patent had been taken out for the invention. Mr. Nasmyth had not yet saved money enough to enable him to do so on his own account; and his partner declined to spend money upon a tool that no engineer would give him an order for. No secret was made of the invention, and, excepting to its owner, it did not seem to be worth one farthing. Such was the unpromising state of affairs when Mr. Schneider, of the Creusot Ironworks, in France, called at the Patriotic Works, together with his practical mechanic, Mr. Bourdon, for the purpose of ordering some tools of the firm. Mr. Nasmyth was absent on a journey at the time, but his partner, Mr. Gaskell, as an act of courtesy to the strangers, took the opportunity of showing them all that was new and interesting in regard to mechanism at the works, and, among other things, Mr. Gaskell brought out his partner's sketch or "scheme book," which lay in a drawer in the office, and showed them the design of the steam-hammer, which no English firm would touch. They were much struck with its simplicity and practical utility, and Mr. Bourdon took careful note of its arrangements. Mr. Nasmyth was not even aware of Messrs. Schneider and Bourdon having seen his design until his visit to France, in 1840. When passing through the works at Creusot with Mr. Bourdon, Mr. Nasmyth saw a crank shaft of immense size, not only forged in the piece, but punched. He immediately asked, "How did you force that shaft?" Mr. Bourdon's answer was, "Why, with your hammer, to be sure!" Great indeed was Mr. Nasmyth's surprise, for he had never yet seen the hammer, except in his own drawing. A little explanation soon cleared all up. Mr. Bourdon said he had been so much struck with the ingenuity and simplicity of the arrangement that he had no sooner returned than he set to work, and had a hammer made in general accordance with the design that Mr. Gaskell had shown him, and that its performance had answered his every expectation. Mr. Nasmyth's patent was, according to Mr. Smiles, secured in June, 1840 (this should be Dec. 9, 1842). But the glowing and poetical description of the wonder-working powers of the steam-hammer, of its action, ease of management, regulation of the force of blows, &c., was not in any degree applicable to the design of the first hammer made on Mr. Nasmyth's plan, but only to those constructed afterwards and fitted with Mr. Wilson's self-acting motion.

Although Nasmyth's hammer was considered by some to be an improvement upon the old helve, the steam-hammer, as then constructed, was far from being the perfect tool it has subsequently become. The steam was admitted into the cylinder by an ordinary valve, and worked by means of a long lever, and with no little labour. But at this point Mr. Rowlandson raises the question—Did the idea of a steam-hammer really originate with Mr. Nasmyth, or is it but another illustration of the old proverb—that there is nothing new under the sun? A patient was taken on for a steam hammer by that celebrated father of engineers, the great James Watt, bearing the date of April 28, 1784, in which he describes "heavy hammers or stampers, for forging or stamping iron, copper, or other metals, or other matters, without the intervention of motive motions or wheels, by fixing the hammer or stamper to be so worked, either directly to the piston or piston-rod of the engine." There is also a patent for a steam-hammer taken out by Mr. W. Deverell, described as an engineer of Surrey, dated June 6, 1806, in which he says—"This invention consists in giving motion to hammers, and various other tools, for stamping, &c., by means of a piston, to state the steam to be raised in a boiler or steam vessel, as in the common way, having a steam cylinder, with a piston and piston-rod in it, at the end of which is a hammer, either made fast to the rod by welding, or in any other proper way; the steam from the boiler or steam vessel as aforesaid is let in underneath the piston; after the piston has been raised to a given height there will be an opening made from the underside of the piston, and a vacuum formed, as in the common way, or otherwise the steam may be let out into the common air. The compressed air on the top of the piston will then force the hammer equal to what it may be desired to be raised. The conditions to be fulfilled by a self-acting apparatus were, that the height to which the hammer would rise should be capable of adjustment, in order to have complete command over the power of the blow; and that the instant the blow was struck the hammer should again rise, so that not only no loss of time should ensue, but that the heat in the mass of iron on the anvil might not be reduced, nor carried off by the cold face of the hammer. The peculiar difficulty of insuring a true automatic arrangement will be seen when it is considered that the instant of percussion must vary with almost every blow that is struck, for the piece struck becomes thinner and thinner by each succeeding blow; and in flat bars a blow is first given on the flat side, and then on the edge, the difference in the fall of the hammer in the two cases being oftentimes several inches; and, further, that the hammer must be under perfect control at all times. To overcome this difficulty Mr. Nasmyth tried long and often, but could not succeed in producing the motion required, and the whole of the hammer scheme was in great danger of being abandoned altogether in consequence, so essential was this motion considered to be as affecting the success of the hammer.

In this dilemma, and while Mr. Nasmyth was from home, Mr. Gaskell applied to Mr. Robert Wilson, at that time manager of the works, and at present the managing partner there, strongly urging him to apply his inventive faculties to the solution of the problem which Mr. Nasmyth had failed to accomplish during a period of eleven months which had elapsed since the patent had been secured. Mr. Wilson at once took the matter in hand, and in about a week from the time of doing so the design was completed, the working drawings made, the several parts forged, turned, planed, fitted, and attached to a small hammer (on which several attempts at self-acting motion had already been tried without success), and was at once found to answer most admirably every condition required. By its successful operation the hammer became a giant, endowed with almost supernatural powers, yet held in leading strings by a silken thread; and although Mr. Wilson has eventually superseded this admirable invention by another and a simpler one, still it will be always regarded amongst engineers as a great triumph of mechanical skill and ingenuity.

From the time of the application of Mr. Wilson's self-acting motion the use of the steam-hammer has continually increased, and various improvements have

from time to time been introduced, until the steam-hammer has been brought to a state closely approaching perfection, in which we are accustomed to see it at the present time. That Mr. Nasmyth unfairly excluded Mr. Wilson's name from the patent by which the self-acting motion was secured appears to be beyond question; but such conclusive evidence of the part Mr. Wilson played in the invention is now brought forward that the honour due to him will be no longer withheld; he has the testimony, as to the invention of the motion, of Mr. Holbrook Gaskell (his old employer and the partner of Mr. Nasmyth), who, in a letter giving his account of his invention, writes that "the hammer was designed as Mr. Smiles mentions—to provide for a particular exigency. It was then thought to be only applicable to the largest class of forgings, and so rare was the demand at the time for such massive forgings, that Mr. Nasmyth could not induce any of the proprietors of the great forges of the country to accept the invention on condition of patenting it for themselves, and ordering a hammer from him. Seeing that the utility of the machine was extremely restricted by the valve motion being worked only by hand, therefore, very slowly, and with much labour, I felt desirous that it should be made self-acting, so that it might be worked at a higher speed, and thereby be adapted to all ranges of forgings from the smallest to the largest. The result was, your very beautiful invention of the self-acting motion, for which a patent was immediately secured in the joint names (of I mistake not) of yourself as manager, and of Mr. Nasmyth as principal, of the firm of Nasmyth, Gaskell, and Co., to whom the patent belonged. This self-acting motion at once gave a stimulus to the demand for steam-hammers, and they rapidly became almost necessary adjuncts to every engineering and millwright establishment, instead of being confined to one or two great forges; and Mr. Thomas Creusot, the artisan who not only forged with his own hands the wrought ironwork, but also turned on the steam, which struck the first blow ever given by the hammer under the influence of this motion; whilst with regard to the statements made of Mr. Nasmyth's claims the account in Smiles's "Industrial Biography" is professedly written by Mr. Nasmyth, and Mr. W. Fairbairn excuses himself for the statement in the report on the Paris Universal Exhibition of 1855, by certifying that he "made the statement in question on the authority of Mr. Nasmyth himself."

The claims of Mr. Wilson appear to us to be undoubtedly worthy of support, whether the originality of Mr. Nasmyth's patent be, or be not, admitted; and although at the present time—nearly a quarter of a century after the patenting of the invention—even a public acknowledgment by Mr. Nasmyth could be of no pecuniary advantage to Mr. Wilson, it is to be hoped that such an acknowledgment will be made for the sake of common justice; more especially when it is considered that there is far greater resemblance between the steam-hammers of Watt, Deverell, and Nasmyth, than between those of Nasmyth and Wilson. Mr. Gaskell may well "regret that Mr. Smiles did not procure a more correct account of the history of Mr. Nasmyth's invention," but it is not yet too late for Mr. Smiles to correct "the several exaggerations, omissions, and misstatements which disfigure his otherwise interesting narrative."

**FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY.**—In another column appears the detailed reports upon these mines. Although the remittance by this mail is small (160 ozs.), the commissioner writes encouragingly as to the prospects and value of the properties. It will be seen from the reports that the agents hope to have 36 heads of stamps fully at work during August. Important arrangements have been made for the future development of the mines, from which satisfactory and increasing remittances may be looked for by each mail.

**NITROLEUM.**—The committee appointed by Lloyd's Salvage Association to ascertain the chemical composition and explosive force of nitro-leum, or nitro-glycerine, as well as its applications and places of manufacture, and the means employed for its transport, and the exact nature of the risks attending its manufacture, carriage, and use, has issued its report, in which it is stated that it is exploded by concussion, and apparently, under ordinary circumstances, by nothing else—neither by friction nor by fire. Generally a trifling percussion is sufficient to explode it. Its explosive force is about ten times that of gunpowder. It is usually carried in tin cans, holding each about 25 lbs. weight of the oil. It has all the appearance of ordinary oil, so that there is nothing in itself, or in the tin used for its carriage, to give notice of its dangerous nature. The cans are packed each in a wooden case, for carriage by land or water. The oil is manufactured by the patentee, Mr. Nobel, of Hamburg, and by other persons abroad, under his licence. It is at present employed for blasting only. It is extensively used abroad and in this country.

**TRURO, AUG. 30.**—As I predicted some time ago in the Journal, when the most knowing ones were dining the most gloomy forebodings into the ears of the public that Cornish mining was all over, and very near gone to the dogs, and that Cornwall would be in a state of bankruptcy in a very short time, I told them it was only a temporary cloud, and that it would soon pass off, subsequent circumstances have fully confirmed the opinion I then gave expression to, that it was only a cloud, we have seen a good rise in both tin and copper, with a great reduction in the Bank rate. Not only so, but great improvements have also taken place in several mines. I also stated in last week's Journal a great rise would take place in two or three mines. These predictions have also turned to be quite correct. For instance, take the following mines:—Last week Bullers were sold at 9½; to-day they are 17½; East Carn Breva, 22s. 6d.; to-day, 55s. North Treskerby were 2½; to-day they are 3½. A great rise may be expected to take place in Wheal Rose; there is a splendid lode in the bottom level. Rudwick Cools will also have a great rise; these shares were a month ago sold at 2s. each, and are now at 15s. to 20s.; buyers; they have a splendid lode of lead and blende. I have no doubt the shares will go to 10l. or 12l. The mines in this district (Truro) are all improving. Wheal Jane and Falmouth and Sperris are looking well, also West Chilverton, Chilverton Moor, North Chilverton, East Chilverton, and Great South Chilverton have also improved. New Treleigh I have frequently called attention to, and I may say the outlay has been made, and dividends may be looked for, and that soon. Tresavan also deserves attention; the district is good, and the ore rich. Treblecuse, to which I called attention last week, has also much improved; they have a rich lode of lead and blende, said to be worth together 6 tons per fathom. These shares, on which there has been no outlay, are marketable at 2½ per share, and it is almost expected that dividends will be paid without a farthing call being made.—JOSEPH DUNSTAN.

**MR. J. P. ENDEAN, STOCK AND SHAREDEALER, FINANCIAL AND FOREIGN MINING AGENCY, OFFICES, 5, FISBURY CHAMBERS, LONDON WALL, E.C., LONDON.**

**MESSRS. R. C. CLIFTON AND CO., SHAREBROKERS, ALDINE CHAMBERS, PRINCESS STREET, MANCHESTER.** Mines inspected, and reports furnished. The best practical advice given to capitalists as to investments in mining. Bankers: National Provincial Bank, Manchester.

**JOSEPH TAYLOR AND CO., FINANCIAL, MINING, AND GENERAL AGENTS, 17, CROSS STREET, MANCHESTER. DEALER IN MINING AND OTHER SHARES.**

**MESSRS. C. THOMAS AND CO., CIVIL AND MINING ENGINEERING OFFICES, POOLFOLD CHAMBERS, CHAPEL WALKS, MANCHESTER, AND REDRUTH, CORNWALL.**

**MR. WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, continues to deal, at close market prices, in all good sound DIVIDEND AND PROGRESSIVE MINES, either for cash or the account.**

**MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS, 16, UNION COURT, OLD BROAD STREET, LONDON, E.C.**

Messrs. Wilson, Ward, and Co. are DEALERS in the FOLLOWING SHARES, at market prices: Frontino and Bolivia Gold, Great Laxey, Caldbek Fells, Pen-hale and Lonax, New Wheal Towan, and North Treskerby. Can recommend two good mines for investment. Their fortnightly Circular may be had on application.

**MR. D. STICKLAND, M.E.,** having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

**MINES INSPECTED AND FAITHFULLY REPORTED ON. DEALER IN MINING, RAILWAY, AND OTHER SHARES. Temporary Offices, 78, Shrubland Grove, Dalston.**

**MR. GEORGE DARLINGTON, CONSULTING MINING ENGINEER** (Graduate of the Royal School of Mines), GROVE PARK, WREXHAM.—MR. DARLINGTON IS OPEN TO ACCEPT ENGAGEMENTS TO REPORT UPON, MODEL, OR ARRANGE MINES OR MINING WORKS, and from his practical and varied experience in all kinds and classes of mines, both abroad and at home, especially on the Continent, in America, and in Australia, he can confidently offer his services to those who may require faithful reports or examinations of mining properties at home or abroad. Mr. DARLINGTON speaks French and German fluently, and is acquainted with the mining laws of those countries.

## NOTICE OF REMOVAL.

**MESSRS. TREDINNICK AND CO., DEALERS IN STOCKS AND SHARES.**

**MR. RICHARD TREDINNICK, MINING ENGINEER AND CONTRACTOR.**

**MR. THOMAS TREDINNICK, SCRIVENER.**

**OFFICES, ST. MICHAEL'S HOUSE, CORNHILL, LONDON.** The business hitherto conducted at 78, Lombard-street is transferred to the above address. Stocks, Shares in Banks, Railways, Canals, and Insurance Companies dealt in, and Money Advanced upon all sound Securities. Principals alone treated with.

**SHAREHOLDERS IN PUBLIC COMPANIES** desirous of avoiding calls and further responsibility will find purchasers on applying to Messrs. BARRETT AND CO., 75, OLD BROAD STREET, CITY, and No. 9, SPRING GARDENS, CHANCERY CROSS. Stocks, shares, &c., bought and sold. Investment Review on application. Cash advances made.

Memorial to the late Nicholas Wood, Esq.

**MEMORIAL TO THE LATE NICHOLAS WOOD, Esq.**—At a meeting of friends interested in promoting a memorial to the late Nicholas Wood, Esq., THOMAS E. FORSTER, Esq., Chairman, it was resolved:—That this meeting be adjourned, and that a public meeting of the coal trade and others be called, to be held on Saturday, the 15th September next, at Twelve o'clock noon, in the Neville Hall, Newcastle, for the purpose of considering—first, the nature of the memorial; and to enter into a subscription for carrying the same into effect.

In the meantime, subscriptions will be received by—  
R. P. EDGER, } Hon. Treasurers.  
J. BUSTIN, }  
JNO. TODD, Hon. Sec.,  
Hetton-le-hole, Fence Houses.  
Coal Trade Office, Newcastle-on-Tyne, August 18, 1866.

## Royal School of Mines.

**ROYAL SCHOOL OF MINES.**  
JERMYN STREET, LONDON.  
The SIXTEENTH SESSION WILL COMMENCE ON MONDAY, 1st OCTOBER. Prospectuses of the course of study may be had on application to the Registrar, TRENHAM REEKS, Registrar.

**WILLIAMS'S PERRAN FOUNDRY COMPANY, PERRANARWORTHAL, CORNWALL.**  
MANUFACTURERS OF STEAM PUMPING AND EVERY OTHER KIND OF ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery.  
London Agent.—MR. EDWARD COOKE, 2, Crown Chambers, Threadneedle-street.

**WORKINGTON IRON COMPANY (LIMITED).—TO BE SOLD, BY PRIVATE TREATY, together or separately, SIX SHARES** in the above company, upon which a dividend of Twenty per cent. per annum was paid in March last. Proposals will be received, and information given, by MR. WILLIAM DICKINSON, of Thornicroft, Workington; or Mr. WATSON, solicitor, Cockermouth.—Cockermouth, August 21, 1866.

**STEAM ENGINES FOR SALE.—60-INCH PUMPING ENGINE** equal beam, 10 ft. stroke, with TWO 10-ton BOILERS; 36-IN. CYLINDER SINGLE-ACTING ROTARY ENGINE, 14 ton fly-wheel, with 9-ton BOILER; 18-IN. CYLINDER DOUBLE-ACTING ROTARY ENGINE, with drawing gear, wharf engine, and 7-ton BOILER, the whole in good condition, to be seen at Kelly Bray Mine, Callington, Cornwall.—For further particulars and price, apply to Mr. EDWARD KING, 22A, Austinfriars, London.

**FOR SALE.—A SECOND-HAND PORTABLE OR TRACTION STEAM ENGINE, of 7-horse power; has reversing gear; with or without pit winding drum.—Apply to BARROWS and CARMICHAEL, Portable Engine Works, Banbury, Oxon.**

**PORTABLE STEAM-ENGINES (SECOND-HAND) FOR SALE.**—TWO 20-horse, by ROBEY, of Lincoln; TWO 10-horse, by CLAYTON, SHUTTLEWORTH, and Co., and a 6-horse; also a 10-horse RETURN FLUE ENGINE; and also FOUR OTHER ENGINES, out of repair, which will be disposed of at a moderate price.—For particulars, apply to MEAD and Co., No. 2, King's Bench-walk, Temple, E.C.

**FOR SALE, A LOCOMOTIVE ENGINE** (six wheels, four coupled) and TENDER. Inside cylinders just new. Bored 14½ in., stroke 21 in. Driving wheels about 5 ft., and trailing ditto 3 ft. Tyres in capital order. Copper fire-box and steel tubes, and link motion. The engine is in good working order.—Address, Mr. WHEATLEY KIRK, engineer, valuer, auctioneer, &c., 8, Essex-street, Manchester.

**THE NEW CRIDDIS MINING COMPANY, in the parish of PADSTOW, CORNWALL.** In 1200 parts or shares.—A FEW SHARES in this promising adventure may be had on favourable terms.—Apply to Capt. RICHARD RICH, of Bodmin, the agent; or to JAMES CARTER and SON, share-brokers, Nottingham.

**THE NEW CORNISH LEAD AND COPPER MINING COMPANY (LIMITED).**—Notice is hereby given that a SIXTH CALL, of TWO SHILLINGS AND SIXPENCE PER SHARE, has been made on the "New Shares A." In this company, such call to be paid to the bankers of this company, the Birmingham Banking Company (Limited), at their banking house, Bennett's-hill, Birmingham, on or before Thursday, the 27th day of September, 1866.  
By order, J. CHAMBERLAIN BARLOW, Sec.  
Office, 39, Waterloo-street, Birmingham, August 27, 1866.

**THE GOTHIC SILVER-LEAD AND MINING COMPANY (LIMITED).**—Notice is hereby given that the directors have issued reports, and the report of the managing director, on the condition and prospects of their mine, and have also enclosed by post a cheque for 5 per cent. interest (half of 10 per cent. guaranteed) to every registered subscriber. The samples of the ore now being raised at the mine can be seen at the company's offices.  
By order of the board, ARTHUR COWPER, Chairman.  
67, King-street, Manchester, Aug. 30, 1866.

**THE COPIAPO EXTENSION RAILWAY COMPANY (PABELLON AND CHANACHILLO RAILWAY), incorporated under the law of Chili.**—Notice is hereby given, that a SPECIAL or EXTRAORDINARY GENERAL MEETING of this company will be HELD at the office of the company, No. 2, New Broad-street, on FRIDAY, the 30th day of November, at Two o'clock precisely, for the purpose of authorising the expenditure of an amount not exceeding £3150 upon an engine and locomotive stock for the company, and the creation of bonds to be issued in payment for such engine and stock.  
By order, EDWARD J. COLE, Sec.  
2, New Broad-street, London, 30th August, 1866.

**BRITISH MINERAL STATISTICS FOR 1865.**  
Now ready, in royal 8vo., price 2s. 6d., sewed.  
**BRITISH MINERAL STATISTICS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND FOR THE YEAR 1865:** Containing Returns of all the Mines of the United Kingdom, and the Production of Tin, Copper, Lead, Zinc, and Iron, and also of Gold and all other Metals and Minerals; the Produce of Coal in 1865, the Names of all the Collieries at Work, the Quantities of Coal Exported and retained for Home Consumption, both for Domestic and Manufacturing Purposes; together with some Account of Cannel Coal and of Bituminous Shale Oils.  
Compiled by ROBERT HUNT, F.R.S., Keeper of Mining Records, and printed by order of the Lords Commissioners of H.M. Treasury.  
London: Published by H.M. Stationery Office by Longman's and Co., Paternoster-row, and E. Stanford, Charing-cross.

Now ready, price 5s., by post 5s. 4d.,  
**THE MINES OF CORNWALL AND DEVON: STATISTICS AND OBSERVATIONS, FOR 1865.**  
By THOMAS SPALGO, Mining Engineer, Stock and Sharebroker, Gresham House, Old Broad-street, London, E.C.

**NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES, MONTGOMERYSHIRE** (late manager of the Brynparist and Cwm Ffion Mines, and others, in Shropshire and Wales), is NOW OPEN TO INSPECT and faithfully REPORT UPON ANY LEAD MINE in either of these localities that may be confided to his care, having had better than 30 years' experience in lead mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montgomeryshire.

**CAPT. JOHN ROBERTS, who has just returned from Brazil, and who has spent eighteen years in gold mining in Brazil, New Granada, &c., now OFFERS himself to INSPECT any MINES or ore in Great Britain.** Capt. ROBERTS would have no objection to a permanent situation.—Address, Hotel, Schull, co. Cork, Ireland.

**CAPT. J. RABEY OFFERS FOR SALE FIFTY SHARES, at the** nett price of £3 per share, in the CAL-RANT MINE, joining the great Minera Mine, and one of the best prospects in the district, being all whole ground, and the mine paying for itself now at the shallow depth of 40 yards.—Address, Capt. J. Rabey, Coedport, near Wrexham, Denbighshire, North Wales.

**CAPT. RICH. BODMIN, CORNWALL,** being in the centre of the mining districts of Devon and Cornwall, and having had 25 years' experience in the management and inspection of mines, OFFERS HIS SERVICES TO INSPECT and REPORT on MINES in either of the above counties. Orders promptly attended to.

**ROBERT LIBBY AND SON, MINE SHAREDEALERS, &c., CAMBORNE, CORNWALL.**  
The time is fast approaching when Cornish mining will again resume its position, and we now beg to call the immediate attention of capitalists to buy, as there are many mines just now in the county, if the shares are bought at once, which will soon realise cent. per cent. for their outlay; and being situated in the immediate neighbourhood, we shall be glad to give every information to parties who will favour us with an enquiry.  
MINES SPECIALLY RECOMMENDED for immediate purchase:—  
Cook's Kitchen. South Crofty. New Lovell.  
East Lovell. North Crofty. Wheal Trannack.

**MINING OFFICES, MANCHESTER.**  
**THOMAS MOLYNEUX AND CO., MINE AGENTS AND SHAREBROKERS.** Reliable information can be obtained as to purchase and sale of shares.  
Office of the Ellen United Copper and Zinc Mining Company (Limited), and Hazeal Grove Silver-Lead Mining Company (Limited). THOMAS MOLYNEUX, secretary, 28, Princess-street, Manchester.

**MANCHESTER, AND WEST END OF LONDON.**  
**MR. W. HANNAH, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER.**  
ROYAL INSURANCE BUILDINGS, KING STREET MANCHESTER; and 31, REGENT STREET, LONDON, S.W.  
INSTANTANEOUS COMMUNICATION with the STOCK and MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices. A Monthly Investment Circular on application.

**CHARLES DAVEY AND CO. SAFETY FUSE MANUFACTURERS, ST. HELEN'S JUNCTION, LANCASHIRE.**

\* "History of the Steam-Hammer: a lecture." Third edition, revised and annotated. By T. S. ROWLANDSON. Eccles: Shuttleworth.  
"Industrial Biography." By SAMUEL SMILES. London: John Murray, Albemarle-street.



**GREAT DISCOVERY IN BORING AND BLASTING.**  
AT THE DEVON GREAT CONSOLS COPPER MINES.  
Mr. ABEGG is NOW CONDUCTING THE TRIAL OF PATENTED BORING AND BLASTING MACHINES. Up to the present time the trial has proved most satisfactory. In killing, intermixed with veins of quartz, the boring machine bores holes of 2½ in. diameter 3 ft. deep in three-quarters of an hour, by one man. The holes are blasted with electricity. The charge of powder is mixed with sawdust, three-quarters of the latter to one-quarter of the former; the saving of the powder is thereby three-fourths. The quantity of powder used is the same as for a small hole, but from the size of such a large hole the effect of breaking is three or four times more at one blast.

Any further particulars as to the price of the machine, &c., may be obtained by application to Mr. RICHARDS, Crosby House, 95, Bishopsgate-street, London; or to Mr. ABEGG, at Devon Great Consols Mine, where the machines will be used in the 130 cross-cut during the next fortnight.

**COAL CUTTING MACHINERY.**  
THE WEST ARDLEY COMPANY having, by recently patented improvements, perfected their coal cutting machinery, worked by compressed air, are NOW READY TO MAKE CONTRACTS FOR THE CONSTRUCTION AND USE OF THEIR MACHINES.

The results of twelve months' experience in the working of these machines, by the West Ardsley Company, have proved most satisfactory, their use being found to CHEAPEN THE COST AND IMPROVE THE AVERAGE SIZE OF THE COAL, TO LIGHTEN THE LABOUR, and also to MODIFY THE SANITARY CONDITION OF THE MINE.

All communications to be made to Messrs. FIRTH, DONNISTHORPE, and BOWER, No. 8, Britannia-street, Leeds.

**NOTICE.**—The WEST ARDLEY COMPANY, having reason to believe that their patents are being infringed upon, hereby give notice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may MAKE FOR SALE, OR USE ANY MACHINERY in the construction of which any such INFRINGEMENT IS MADE.

**SAFETY FUSE.**—Messrs. WILLIAM BRUNTON AND CO., PENHALLICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe. For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED TO EXECUTE UNLIMITED ORDERS FOR SUPPLYING FUSE, upon warrant that it will prove equal to, if not better than, any to be procured elsewhere.

**IMPROVED APPLICATION OF WATER-POWER.**  
**THE TURBINE.**—MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, have been engaged for fifteen years, with complete success, in MANUFACTURING THEIR IMPROVED TURBINES, and can recommend them with confidence.

This machine is applicable to all practicable heights of fall and quantities of water, giving a much higher percentage of power than any other description of water-wheels.

On low falls it has the additional advantage of not being affected by floods or backwater, and it is particularly well adapted for any falls where the quantity of water is variable.

Further particulars on application, also references to turbines now at work on a great variety of falls.

**NICKEL AND COBALT REFINING, AND GERMAN SILVER WORKS.** 16, OZZELL STREET NORTH, BIRMINGHAM.  
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—REFINED METALLIC NICKEL, REFINED METALLIC BISMUTH, OXIDE OF COBALT, GERMAN SILVER—IN INGOTS, SHEET, WIRE, &c. NICKEL AND COBALT ORES PURCHASED.

**GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND CHEMICAL WORKS.**

NEAR STAKE-UPON-TRENT, STAFFORDSHIRE.  
JOHN HENSHALL, WILLIAMSON, MANUFACTURER AND REFINER, Purchaser of Borate of Lime and Tincl.

**GALLOWAY'S PATENT CONE TUBES FOR STEAM BOILERS.**—The introduction of these vertical taper tubes into the ordinary flued boilers PROMOTES THE NECESSARY CIRCULATION OF WATER, and thus INCREASES THEIR STRENGTH AND DURABILITY.

Their adoption not only adds to the steam-producing power of the flues, but renders the practice of hooping with angle or iron rings quite unnecessary. The tubes have now been in use upwards of 14 years, and above 22,000 are in work in various parts of the country, with the best results.

They can be easily fixed in existing boilers (owing to their taper form) by any boiler maker, but can only be obtained from the patentees, W. and J. GALLOWAY and SONS, Engineers and Boiler Makers, Manchester.

**VULCANISED INDIA-RUBBER, FOR ENGINEERS AND MECHANICAL PURPOSES.**

VALVES—for Marine and Land Engines' Steam Packing, sheet or roll. DELIVERY AND SUCTION HOSE—for Brewers, Distillers, Fire-engines, Gardens, &c.

MACHINE BANDS—for all descriptions of Machinery. GAS TUBING—with or without wire. GAUGE GLASS RINGS; WASHERS.

Price Lists free on application. SOUTHWARK INDIA-RUBBER COMPANY (LIMITED), 67, GRANGE ROAD, BERMUNDSLEY, LONDON, S.E.

**Swan Rope Works.**

**GARNOCK, BIBBY, AND CO., CHAPEL STREET, LIVERPOOL.**

MANUFACTURERS OF FLAT AND ROUND HEMP AND IRON AND STEEL WIRE ROPES FOR MINING, RAILWAY, AND SHIPPING PURPOSES.

MANILLA ROPE OF SUPERIOR QUALITY, FIFTY PER CENT. STRONGER AND THIRTY PER CENT. CHEAPER than Russian hemp rope.

WIRE ROPE OF FIRST QUALITY WIRE, and the HIGHEST STANDARD OF STRENGTH.

**BASTIER'S CHAIN PUMP.**—This patent pump is the MOST EFFICIENT in existence for LIFTING ANY QUANTITY OF WATER from ANY DEPTH. One lifting from a depth of 170 ft. may be seen at work daily, on application to the

SOLE LICENSEES, MESSRS. J. JACKSON AND CO., ENGINEERS, 17, GRACECHURCH STREET, LONDON, E.C.

Who SUPPLY PUMPS and LANCES. Communications to Mr. Bastier, the patentee, to be sent to the same address.

AGENT FOR THE COUNTIES OF NORTHUMBERLAND AND DURHAM, YORKSHIRE, DERBYSHIRE, AND NORTH STAFFORDSHIRE.

MR. THOMAS GREENE, MINING OFFICE, NORTHGATE, DARLINGTON.

**CREASES NEW AND IMPROVED PATENT BORING MACHINE.**—In consequence of the various and IMPORTANT IMPROVEMENTS that an experienced and successful inventor has enabled the inventor to introduce into the machine, he can with the most perfect confidence recommend them for their increased DURABILITY, SIMPLICITY, ECONOMY, and SPEED to be attained by their adoption in DRIVING LEVELS or DRIFTS.

The inventor has made arrangements to supply them in any quantity, with warranty. Orders executed according to their date of priority.

Address, EDWARD S. CREASE, Tavistock, Devon.

**RED LION HOTEL, TRURO.**—OLD-ESTABLISHED FIRST-CLASS FAMILY, COMMERCIAL, AND POSTING HOUSE.

In returning thanks to the nobility, gentry, commercial gentlemen, and the public generally for their patronage for many years past, Mrs. DOBB begs to inform them that no effort on her part will be wanting to afford every comfort, and thus obtain a continuation of their support.

Superior accommodation to families, tourists, and mining gentlemen travelling on business or pleasure, at moderate charges. Ladies' and gentlemen's coffee and private sitting-rooms. Table d'hôte daily. First-class cooks.

Dog-carts, wagoettes, and carriages of all descriptions. Hearse and mourning-coaches. Excursion and railway omnibuses.

Orders for weddings, funerals, or posting, promptly attended to. Stock and show-rooms for commercial purposes. An omnibus to meet every train.

**RAILWAYS AND MINES.**—Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the bona fide merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the Money Market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range of profit than any other public securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £10 to £15 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to Railways and Mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the initiated in selecting mines for investment.

Messrs. TREDINNICK AND CO., ST. MICHAEL'S HOUSE, CORNHILL, LONDON.

**THE PRACTICAL MECHANIC'S JOURNAL FOR SEPTEMBER** (Part 18), third series, price 1s., with large and highly-finished plate engraving of "Coffer Dam and Siphons, Middle Level," and twenty-three wood engravings. Original Articles on Some Points of Practice in Iron Founding; Turrets or no Turrets; Asbestos, and its New Source; the Atlantic Telegraph; Chain Pumps for Deep Lifts; Bastier's Patent Chain Pump; Gale's Non-explosive Gunpowder; Ireland and Davies' Weighing Machine and Turntable combined. Recent Patents: Steam Generators—J. H. Johnson; Treating Grain—William Rowland Taylor; Signalling Apparatus—William Buckley. Reviews of Books, Mechanics' Library, Correspondence, Scientific Societies, Marine Memoranda. Monthly Notes, List of Patents, &c. London: Longmans, Paternoster-row; Editor's Offices (Offices for Patents), 47, Lincoln's Inn-fields.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the WHEEL HARTLEY MINING COMPANY.**—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 17th day of September next, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to WILLIAM MICHELL, Esq., the Registrar of the said Court at Truro. Dated Truro, Aug. 29, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the WEST WHEEL PROSPER MINING COMPANY.**—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 17th day of September next, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to WILLIAM MICHELL, Esq., the Registrar of the said Court at Truro. Dated Truro, August 29, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the ST. JUST UNITED TIN AND COPPER MINING COMPANY (LIMITED).**—Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 8th day of September next, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS and PARTICULARS of THEIR SEVERAL CLAIMS on the said company, to WM. MICHELL, Esq., the Registrar of the said Court at Truro. Dated Truro, Aug. 30, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the WENDRON CONSOLS MINING COMPANY.**—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 4th day of September next, at Eleven o'clock in the forenoon, at WENDRON CONSOLS MINE, in the parish of Wendron, within the said Stannaries, either together or in lots, the MINE SETT, or GRANT, of the said company, and the under-mentioned MINING MACHINERY and MATERIALS, namely:—ONE STEAM ENGINE, 70 in. cylinder, and ONE 50 in. STEAM ENGINE, with rod and wood work; FOUR BOILERS, with steam and feed pipes and all fittings, complete; V and angle bobs and stands, centre pieces, capstans, plunger poles, stuffing boxes and glands; door and H-pieces; pumps and windbores of various sizes; pump and flat rods; steam whim-engine, with 18 in. fly-wheel, and boiler of 7 tons; whim tackle and cage; chain, shears, and chivies; clock pieces; stamps; wheels, axles, and heads; frames and flooring; wood houses and sheds. A quantity of smiths' and miners' tools. Old stamps' leavings, rope, ladders, and a variety of other articles in general use in mines.

Further particulars may be obtained of Mr. JOHNS, the officer of the Court in possession. HODGE, HOCKIN, AND MARRACK, Solicitors, Truro, Cornwall.

Dated Registrar's Office, Truro, August 16, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the WHEEL SITHNEY AND CARMEL UNITED MINING COMPANY.**—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Monday, the 17th day of September next, at Eleven o'clock in the forenoon, at WHEEL SITHNEY AND CARMEL UNITED MINES, in the parish of Sithney, within the said Stannaries, either together or in lots, the MINE SETT or GRANT of the said company, and the under-mentioned MINING MACHINERY and MATERIALS, viz:—

ONE 60 in. cylinder PUMPING ENGINE, with TWO BOILERS 1½ tons each. ONE 45 in. cylinder ENGINE, with BOILER, 10 tons; 10 fms. 8 in. plunger-lift, 20 fms. 12 in. ditto, 2 15 fms. 12 in. drawing-lifts, 35 fms. 11 in. wood main-rod, 1 V-bob, 1 balance-bob, 17 arm capstan and 48 ft. shears, whim and capstan chain, pumps and windbores of various sizes, a quantity of steel, new and old iron, smiths' and miners' tools, gears, whim-rope, several ladders, wheel and landing barrows, a large quantity of new and old timber, &c., account-house and office furniture, and a variety of other articles and effects in general use in mines.

The plant and machinery on the above mine are of a most valuable description. The materials may be inspected any time prior to the sale, on application to Mr. RD. OLIVER, in charge thereof.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, August 30, 1866.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

**IN the MATTER of the COMPANIES ACT, 1862, and of the SOUTH ALFRED CONSOLS MINING COMPANY.**—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 11th day of September next, at Eleven o'clock in the forenoon, at the SOUTH ALFRED CONSOLS MINE, in the parishes of Phillack and Gwnear, within the said Stannaries, either together or in lots, the MINE SETT or GRANTS of the said company, and the under-mentioned MINING MACHINERY, MATERIALS, and OTHER EFFECTS, viz:—

ONE 45 in. cylinder ENGINE, with BOILER, 10 tons; 10 fms. 8 in. plunger-lift, 20 fms. 12 in. ditto, 2 15 fms. 12 in. drawing-lifts, 35 fms. 11 in. wood main-rod, 1 V-bob, 1 balance-bob, 17 arm capstan and 48 ft. shears, whim and capstan chain, pumps and windbores of various sizes, a quantity of steel, new and old iron, smiths' and miners' tools, gears, whim-rope, several ladders, wheel and landing barrows, a large quantity of new and old timber, &c., account-house and office furniture, and a variety of other articles and effects in general use in mines.

For further particulars apply to Mr. WILLIAM MOSS, the officer of the Court in possession of the mine. HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Truro, August 22, 1866.

In Chancery.

THE MASTER OF THE ROLLS AT CHAMBERS.

TUESDAY, the 7th day of AUGUST, 1866.

**IN the MATTER of the JOINT-STOCK COMPANIES WINDING-UP ACTS, 1848 and 1849, and of the MEXICAN AND SOUTH AMERICAN COMPANY.**—Upon the application of the Official Manager of the above-named company, and upon reading the London Gazette of the 31st day of July, and the 3d day of August, 1866, the Times newspapers of the 30th day of July, and the 3d day of August, 1866, the Daily News newspapers of the 28th day of July, and the 1st day of August, 1866, the Mining Journal of the 25th day of July, and the 4th day of August, 1866, and the affidavits of the said Official Manager, sworn on the 7th day of August, 1866, and the schedules or exhibits respectively marked A therein referred to, and the affidavits of Winterbourne Skinner Clarke, sworn this day, and the schedules or exhibits respectively marked A, B, and C, therein referred to and on the file of proceedings in this matter, it is peremptorily ordered that a CALL of ONE POUND PER SHARE be made on the several persons who have been settled on the list of contributors of this company, and who are entitled to contribute to the said call, as also as also of Messrs. CLARKE, WOODCOCK, and RYLAND, 14, Lincoln's Inn-fields, London; and at the principal hotels and inns in Manchester, Liverpool, Chester, and Llanberis and the neighbourhood.

CLARKE, WOODCOCK, AND RYLAND, 14, Lincoln's Inn-fields (Agents for Rawlins and Rowley, Birmingham, Plaintiffs Solicitors).

GLAMORGANSHIRE. PARISH OF CADOXTON-JUSTA-NEATH.

SALE OF A VALUABLE FREEHOLD RESIDENTIAL ESTATE, MANUFACTURING SITE, BUILDING GROUND, GROUND RENTS, &c.

**MR. THOMAS THOMAS** begs respectfully to announce that he has been favoured with instructions to SELL, BY AUCTION, at the Castle Hotel, Neath, on Wednesday, September 5, 1866, at Three o'clock, all that VALUABLE FREEHOLD ESTATE, with the MANSION HOUSE and APPURTENANCES, known as LONLAS, situate in the parish of Cadoxton-juxta-Neath, close to the Llanmichael Station of the Great Western Railway, together with a large quantity of FREEHOLD BUILDING LAND, FIRE-BRICK WORKS, COTTAGES, GROUND RENTS, &c., full particulars of which, with plan, may be had, and further information obtained, on application to Messrs. NEWMAN, LYON, and NEWMAN, Solicitors, 7, King's Bench Walk, Temple, London, and Yeovil, Somerset; or to Mr. KEMPTHORNE, Solicitor, Neath; or at the Auctioneer's offices at Neath and Swansea. August, 1866.

In Chancery.

SLATE QUARRIES—LLANBERIS, CARNARVON.

**TO BE SOLD,** pursuant to a Decree of the High Court of Chancery, made in a Cause of Newton and Others v. Jones and Others, with the approbation of his Honour the Vice-Chancellor Sir John Stuart, in One Lot, by Mr. JOHN CHURTON, the person appointed by the said Judge, at the Queen's Hotel Railway Station, in the city of Chester, on Saturday, the 29th day of September, 1866, at Twelve for One o'clock in the afternoon precisely, VALUABLE LEASEHOLD BLUE and GREEN SLATE QUARRIES, situate at Llanberis, in the county of Carnarvon, known as GOODMAN'S SLATE QUARRIES, and also the weighing machine, machinery, fixtures, and other effects on or in the said quarries.

To view the quarries, application to be made to Mr. JOHN WILLIAM JONES, Llanberis; Messrs. RAWLINS and ROWLEY, solicitors, Birmingham; and Messrs. CHURTON and ELPHICK, auctioneers and land valuers, Chester, from all of whom printed particulars and conditions of sale can be obtained; as also of Messrs. CLARKE, WOODCOCK, and RYLAND, 14, Lincoln's Inn-fields, London; and at the principal hotels and inns in Manchester, Liverpool, Chester, and Llanberis and the neighbourhood.

CLARKE, WOODCOCK, AND RYLAND, 14, Lincoln's Inn-fields (Agents for Rawlins and Rowley, Birmingham, Plaintiffs Solicitors).

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HIGHLY IMPORTANT SALE OF MINING MACHINERY AT THE WHITE GRIT AND STAPLEY MINES, COUNTY OF SALOP.

Five miles from Bishop's Castle, and six miles from the Minsterley Branch on the Welshpool and Shrewsbury Railway.

**MR. W. BOUSTRED** has been honoured with instructions to SELL, BY AUCTION, without reserve, on Tuesday and Wednesday, 11th and 12th September, 1866, the whole of the VALUABLE PLANT and MACHINERY on the above mines, comprising:—

50 inch cylinder CORNISH CONDENSING ENGINE, equal to new; 40 inch cylinder ROTARY ENGINE, capable of being worked up to great power, in order; 7 BOILERS, from 21 ft. long, 4 ft. diameter, to 37 ft. long, 5 ft. 4 in. diameter, the whole of them in good working order, having been only recently fitted; 329 fms. of plunging and drawing lifts, averaging from 5 to 16 in. bore, of various lengths, with working barrels, wind bores, H and door pieces complete; 200 fms. of red lead and iron rods; strapping plates and bolts; 7 superior plunger poles, 2 duplex punching machine, 2 new capstans, 4 horse whims, clock hammer, iron shafts and cranks, pulley wheels, T and travelling bobs; lifting screw, 14 ft. long, 3 in. diameter; 150 fms. pit ladders, 30 tons of cast and wrought iron, new and old iron, old lead, old brass, miners' and smiths' tools, a large quantity of 4 paces of bellows, 3 whim ropes, 1000 fms. of B.B. crane chain, 3 winches, double and single blocks, new nails, boiler rivets, screw stocks, dies, oil, candles, grease, safety fuse, powder, and a large quantity of other effects described in catalogues to be had, 10 days previous to the sale, of Captain LITTLEJOHN, on the mines; the office of the Midland Counties Herald, Birmingham; Chronicle office, Shrewsbury; or of the Auctioneers, Pontesbury, Shropshire. Sale to commence each day at Eleven for Twelve o'clock punctually.

**ABSOLUTE SALE.**—TO CAPITALISTS, COLLIERY PROPRIETORS, &c.

**MR. JOHN M. LEEDER** is instructed by the mortgagee in possession to OFFER FOR SALE, BY PUBLIC AUCTION (subject to such conditions as shall then and there be produced), on Tuesday, Sept. 5, 1866, at the Mackworth Arms Hotel, Swansea, the VALUABLE COLLIERY and COAL FIELDS, containing 300 acres or thereabouts, known as the KILLAN COBBERLY and COAL FIELDS, situated in the Duntarvon Valley.

The property contains 10 seams of highly bituminous coal, fit for house, gas, and smith's purposes. The colliery is now opened on three of the seams, and capable of a large daily output. A branch and siding, together with necessary tips, and connection with the Duntarvon Valley Railway, being complete.

The colliery is well provided with steam-power and pumping apparatus, in excellent working order, with all necessary tanks, rails, and other plant for working a large quantity of coal.

The above offers a rare opportunity for a safe investment; the transit of the coal to the ports of Swansea and Llanelli (for which there is a ready sale) being very easy by narrow-gauge railway.

Sale to commence at Three o'clock in the afternoon.

Two detailed reports have been made by Joshua Richardson, Esq., and David Llewellyn, Esq., showing the extent and prospective value of the colliery, which can be perused on application.

For further particulars apply to RICHARD JENKINS, Esq., Solicitor, Great Street, Swansea; or to the Auctioneer, at his offices, Commercial Sale Rooms, 16, Caer-street, Swansea.

COUNTY OF DEVON.

ELIGIBLE FREEHOLD AGRICULTURAL AND MINERAL PROPERTY FOR SALE.

**MESSRS. WARD AND CHOWEN WILL SELL, BY AUCTION,** at the Bedford Hotel, Tavistock, on Tuesday, the 4th day of September, 1866, at Half-past Three o'clock in the afternoon, subject to such conditions as will be then and there produced, and in the lots hereunder specified, or other lots, as may be determined at the time of sale, the FREE SIMPLE and INHERITANCE of and in the LANDS, HEREDITAMENTS, and PREMISES following, viz:—

LOT 1.—All that well-watered and desirable ESTATE called BEARWALLS, containing 117 acres, or thereabouts, of meadow, pasture, arable, and other land, with dwelling-house and ample and commodious farm buildings thereon, situate near Lydford, and in the parish of Petterbury, and being about seven miles from Tavistock, and eight miles from Okehampton, and adjacent to the excellent turnpike-roads between those towns, as well as within about two miles of Lydford station of the South Devon and Launceston Railway, from which station there will shortly be railway communication northward and eastward, in addition to the present communication southward and westward. This estate is especially worthy of the notice of investors and capitalists, as both a mineral and agricultural property, as, from its geological position and character, its containing great deposits of metalliferous wealth may be almost relied on, and it is naturally favourable for mining operations. Early possession of this lot can be given.

LOT 2.—All that MESSUAGE, consisting of a roomy dwelling-house (formerly an inn, and suitable for country lodgings), spacious courtyard and outbuildings, closes of land and premises, and containing about 22 acres, called WATERVALE, or WATERFIELD, situate near Lydford, and in the parish of Lamerton, and being about seven miles from Tavistock, and eight miles from Okehampton, and adjoining the turnpike-road between those towns, as well as near the Lydford Railway station. This lot will be sold free from great tithes, or rent charge in lieu thereof, or with the same included, but subject to an annuity of £20 a year to a person now aged 66 years. Early possession of this lot can be given.

LOT 3.—All that ESTATE called INGO, or INDIES (excepting the detached field hereinafter mentioned as Lot 4), containing about 47 acres of meadow, pasture, arable, and other land, with a barn thereon, situate in the parish of Lamerton, and between Lydford village and railway station. This lot includes the land immediately east and west of the celebrated Lydford Bridge, on the southern side of the River Lydford, and is a most attractive property, from its beauties and many advantages, and its adaptability for a residence or villa. There are the most certain prospects of great productiveness of metallic minerals in this estate, lodes and veins of a very important character, some of which have proved very productive elsewhere, having been discovered in the property, which also bears indications of profitable tin streaming in ancient times, and can be mined with great facility. This lot is held by the present tenant for the remainder of a term of 14 years, which expires at Lady-day, 1868; but such tenant is willing to give up possession earlier, if it should be desired, upon fair terms. Lot 2 might be advantageously united to and let with Lot 3, as the house and outbuildings of Lot 2 would suit well for the occupant of the two properties.

LOT 4.—All that CLOSE of LAND called LAMBHOLE MEADOW, containing about 4 acres, situate in the parish of Lamerton, on the western side of the road between Lydford village and railway station, at about equal distances from each place. The railway from Exeter and the North of Devon to Lydford will pass through this lot, but in such a way as to leave good sites for merchants' yards and premises, a place of public entertainment, and villas, or other houses, such as railway communication will create an urgent necessity for. There is an excellent and never-failing spring of water in this field. This lot is let till Lady-day, 1868, but possession can be obtained earlier upon fair terms.

LOT 5.—All those PREMISES, comprising the BIBLE CHRISTIAN CHAPEL at LYDFORD (subject to a lease thereof), the dwelling-house (admirably adapted for lodgings), courtyard, and garden adjoining, and the rich meadow land called Barnhay and Oatenhills, with a plantation situate at Lydford, and containing about 15 acres. This lot is particularly worthy of notice, from the circumstance that a most extraordinary deposit of silver-lead ore was found in it a few years ago, some of which realised the enormous sum of 367. 18s. per ton. The lode in which this deposit was found has not yet had anything like a fair trial, and a little further development of it may with the utmost confidence be expected to be attended with splendid results. Early possession of this lot can be given.

LOTS 6 and 5 adjoin, and have the River Lydford flowing between them.

LOT 6.—All those LANDS and PREMISES called HOLDITCH, and that part of the Shop Tenement called PIT'S MEADOW, containing about 26 acres, situate in the parish of Shepton, with the rent charge in lieu of great tithes thereon. Holditch contains a tin lode, the productiveness of which shall induce the commencement of deeper workings, and these workings, which are far advanced, will, when completed, doubtless lay open a very valuable course of tin ore, which would be very inexpensive to work.

LOT 7.—All that FIELD or CLOSE of LAND called GRATTON, or GREAT PARK, in the parish of Shepton, containing about 4 acres, with the rent charge in lieu of great tithes thereof.

LOT 8.—All those PLANTATIONS called JASPERS, in the parish of Shepton, containing about 4 acres, with the rent charge in lieu of great tithes thereof.

LOT 9.—All that HOUSE, GARDEN, and PREMISES, being part of Shop Tenement, situate in Shepton village.

LOTS 6, 7, 8, and 9 are held by the present occupier, on a lease which will expire at Lady-day, 1868.

Lydford having till recently been inaccessible by railway, and being about to become a railway centre, it will be apparent that land in that locality must henceforth very much benefit and increase in value from railway advantages, and facilities for the development of its agricultural and mineral resources. This sale, therefore, affords a most favourable opportunity of acquiring such property, and one not at all likely to occur again.

Mr. James Stephens, of Lydford, will show Lots 1, 2, 3, 4, and 5; and the remaining lots may be viewed on application to Mrs. Stanbury Yellowmead, Shepton.

For further particulars, apply to the Auctioneers, Uppaton, Milton Abbot; or to Mr. W. P. PAUL, Solicitor, Bank Chambers, Bedford-street, Plymouth.

Dated August 16, 1866.

**CWM RHAYADR MINE LEASE AND PLANT TO BE DISPOSED OF.**—Immediate possession can be given. There are several lead ore veins traversing the estate. Further particulars can be obtained, and to treat, to "H. D." Post-office, Rhayon, North Wales.

DESIRABLE INVESTMENT IN THE FOREST OF DEAN, GLOUCESTERSHIRE.

<



**PATENT FLEXIBLE TUBING,**  
AND BRATTLE CLOTH FOR MINES,  
MANUFACTURED BY  
**ELLIS LEVER,**  
PATENTEE,  
WEST GORTON WORKS, MANCHESTER.

**TAVISTOCK IRONWORKS AND STEEL ORDNANCE**  
COMPANY (LIMITED).  
(LATE GILL AND CO.)  
ENGINEERS, IRON AND BRASS FOUNDERS,  
MANUFACTURERS OF  
STEAM ENGINES, BOILERS, AND MACHINERY OF ALL KINDS,  
CHAINS, SHOVELS, EDGE TOOLS, AND EVERY DESCRIPTION OF CAST  
AND HAMMERED IRON FOR MINING, MANUFACTURING,  
RAILWAY, OR AGRICULTURAL PURPOSES.  
Machinery sent to all parts of the world.  
Foreign mining companies supplied on liberal terms.

**RAILWAY CARRIAGE COMPANY (LIMITED)**  
ESTABLISHED 1847.  
OLDBURY WORKS, NEAR BIRMINGHAM.  
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, AND EVERY  
DESCRIPTION OF IRONWORK.  
Passenger carriages and wagons built, either for cash or for payment  
over a period of years.  
RAILWAY WAGONS FOR HIRE.  
CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.  
LONDON OFFICES, 6, STOREY'S GATE, GREAT GEORGE STREET,  
WESTMINSTER.

**THE METROPOLITAN RAILWAY CARRIAGE AND**  
WAGON COMPANY (LIMITED).  
SALTLEY WORKS (BIRMINGHAM).  
Successors to Messrs. JOSEPH WRIGHT AND SONS.  
MANUFACTURERS OF RAILWAY CARRIAGES, WAGONS, AND RAILWAY  
IRONWORK OF EVERY DESCRIPTION.  
RAILWAY CARRIAGES AND WAGONS built for CASH, or upon DEFERRED  
PAYMENTS EXTENDING over a period of from THREE to TEN YEARS.  
A large number of COAL, IRONSTONE, BALLAST, and other WAGONS to  
be LET ON HIRE.  
MANUFACTORY AND CHIEF OFFICES, SALTLEY WORKS, BIRMINGHAM.  
LONDON OFFICES, No. 8, ADAM STREET, ADELPHI, W.C.

**THE BEVERLEY IRON AND WAGON COMPANY**  
(LIMITED).  
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, WROUGHT  
AND CAST IRON CARRIAGE AND WAGON WHEELS, AXLES, HAMMERED  
USES, AND HEAVY SMITHS' WORK FOR ENGINEERS, &c. BRASS AND  
IRON FOUNDERS. MAKERS OF PORTABLE FARM RAILWAYS, TURN-  
TABLES, CROSSINGS, SWITCHES, &c. AGRICULTURAL MACHINISTS.  
MANUFACTURERS OF FIELD ROAD, AND BARN IMPLEMENTS, PATENT  
LORRY, CART, AND CARRIAGE WHEELS, with WOOD or IRON NAVES.  
BEARING MACHINES, CLOD CRUSHERS, CORN MILLS, &c. SAW MILL  
PROPRIETORS. GENERAL TIMBER CONVERTERS for home and foreign  
RAILWAYS, STATIONS, BARRACKS, EXHIBITIONS, &c.  
IRONWORKS BEVERLEY, YORKSHIRE.  
JAMES DEWHIRST, Sec.

**THE BIRMINGHAM WAGON COMPANY (LIMITED)**  
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for  
HIRE and SALE, by immediate or deferred payment. They have also wagons  
for hire capable of carrying 6, 8, and 10 tons, part of which are constructed  
specially for shipping purposes. Wagons in working order maintained by contract.  
EDMUND FOWLER, Sec.  
WAGON WORKS, SMETHWICK, BIRMINGHAM.  
\* \* \* Loans received on Debenture; particulars on application.  
London Agent—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

**STAFFORDSHIRE WHEEL AND AXLE COMPANY**  
(LIMITED).  
MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, AND CONTRACTOR'S  
WHEELS AND AXLES, and other IRONWORK, used in the CON-  
STRUCTION OF RAILWAY ROLLING STOCK.  
CHIEF OFFICES,  
3 and 4, EXCHANGE BUILDINGS, BIRMINGHAM.

**THOMAS TURTON AND SONS**  
MANUFACTURERS OF  
CAST STEEL FOR PUNCHES, TAPS, and DIES,  
TURNING TOOLS, CHISELS, &c.  
CAST STEEL PISTON RODS, CRANK PINS, CON-  
NECTING RODS, STRAIGHT and CRANK  
AXLES, SHAFTS and  
FORGINGS OF EVERY DESCRIPTION.  
DOUBLE SHEARSTEEL. FILES MARKED  
BLISTER STEEL. T. TURTON.  
SPRING STEEL. EDGE TOOLS MARKED  
GERMAN STEEL. WM. GREAVES & SON.  
Locomotive Engine, Railway Carriage and Wagon  
Springs and Buffers.

**SHEAF WORKS AND SPRING WORKS, SHEFFIELD.**  
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.,  
Where the largest stock of steel, files, tools, &c., may be selected from.

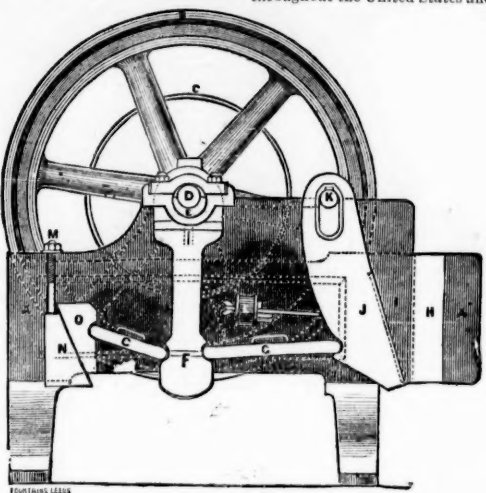
Prize Medal—International Exhibition, 1862.

**CHAPLIN'S PATENT PORTABLE**  
STEAM ENGINES, &c.,  
FOR PUMPING AND WINDING.  
These engines are SPECIALLY ADAPTED FOR PITS,  
QUARRIES, &c. They are EXCEEDINGLY SIMPLE IN  
ARRANGEMENT and STRONG. NO FOUNDATION OR  
CHIMNEY STALK being NECESSARY, they can be  
ERECTED OR REMOVED WITH VERY LITTLE TROU-  
BLE OR EXPENSE, and are WELL ADAPTED for  
HOME or FOREIGN USE.  
Sizes, from 2 to 25-horse power.  
STEAM CRANES, STEAM WINCHES, CONTRACTORS'  
LOCOMOTIVES, HOISTING ENGINES, PUMPING  
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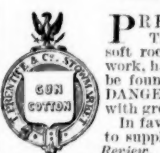
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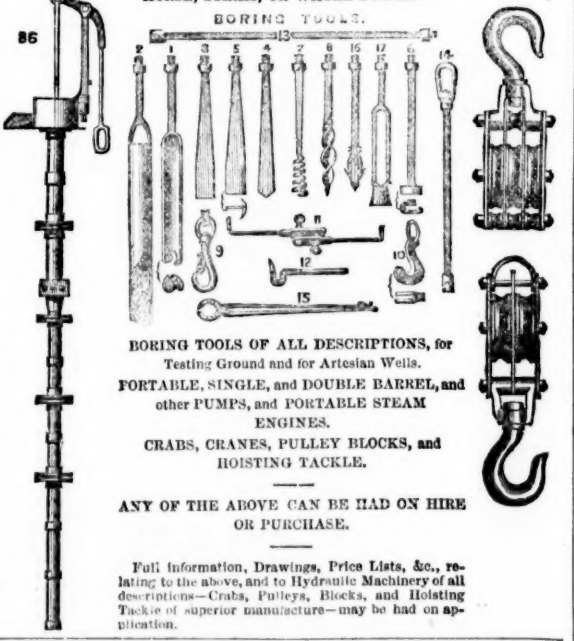
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Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c. Cheshire	10 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
200	Bottle, c. St. Agnes	9 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
10000	British Salt Company	9 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
1000	Broadfield, c. Cardigan	12 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
6400	Cashew, c. Cumberland	12 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
916	Cargill, s-l, Newlyn	15 5 7	12	10 12	13 15 0	0 10 0	Feb. 1866
867	Cwm Ertin, c. Cardiganshire	7 10 0	300	275 300	488 15 0	0 10 0	Aug. 1866
128	Cwmystwith, c. Cardiganshire	60 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
280	Darwent Mines, s-l, Durham	300 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
1024	Devon Gr. Consols, c. Tavistock	1 0 0	400	480 450	814 10 0	0 10 0	Aug. 1866
358	Dolcoath, c. l, Camborne	128 17 6	7	8 1/2 9	13 15 0	0 10 0	Feb. 1866
6144	East Caradon, c. St. Cleer	2 14 6	7	8 1/2 9	13 15 0	0 10 0	Feb. 1866
300	East Darren, c. Cardiganshire	32 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
128	East Pool, c. l, Pool, Illogan	24 5 0	300	275 300	488 15 0	0 10 0	Aug. 1866
5000	East Rosewarne, c. l, Gwincar	2 15 0	300	275 300	488 15 0	0 10 0	Aug. 1866
1906	East Wheal, c. l, St. Agnes	3 9 0	300	275 300	488 15 0	0 10 0	Aug. 1866
2800	Foxdale, c. l, Isle of Man	25 0 0	300	275 300	488 15 0	0 10 0	Aug. 1866
5000	Frank Mills, c. l, Christow	3 18 6	300	275 300	488 15 0	0 10 0	Aug. 1866
15000	Great Lacey, c. l, Isle of Man	4 0 0	20 1/2	19 1/2 20 1/2	4 15 0	0 10 0	June 1866
5000	Great Wheal, c. l, St. Helston	40 0 0	23 1/2	23 1/2	10 0 0	0 10 0	June 1866
1024	Herodfoot, c. l, near Liskeard	8 10 0	35	31 35	37 10 0	0 10 0	June 1866
6000	Hingston Down, c. l, St. Agnes	5 10 6	3	3	10 0 0	0 10 0	Apr. 1866
400	Ilbarn, c. l, Cardiganshire, Wales	18 15 0	3	3	470 0 0	0 10 0	May 1866
9000	Marke Valley, c. l, St. Agnes	4 10 0	3	3	8 7 0	0 10 0	May 1866
3000	Minera Boundary, c. l, Wrexham	1 0 0	4 1/2	4 1/2	10 0 0	0 10 0	July 1866
1800	Minera Mining Co. l, Wrexham	25 0 0	3	3	202 8 0	0 10 0	Aug. 1866
40000	Mynydd Iron Ore	3 5 0	3	3	10 0 0	0 10 0	May 1866
600	Pant-y-Glyn, c. l, St. Agnes	20 0 0	3	3	157 0 0	0 10 0	Jan. 1866
200	Parys Mines, c. l, Anglesey	50 0 0	3	3	81 7 0	0 10 0	Aug. 1866
1120	Providence, c. l, Uny Lelant	10 6 7	28	23 25	529 10 0	0 10 0	July 1866
512	South Killy, c. l, St. Cleer	1 5 0	3	3	18 1 0	0 10 0	July 1866
6000	South Darren, c. l, St. Agnes	3 6 6	3	3	18 1 0	0 10 0	July 1866
6000	Tincroft, c. l, Penryn	9 0 0	9 1/2	10 1/2	13 7 6	0 10 0	Aug. 1866
3000	W. Chiverton, c. l, Penryn	65	62 65	65	459 4 0	0 10 0	Aug. 1866
400	West Wheal Seton, c. l, Camborne	47 10 0	120	135 140	621 0 0	0 10 0	Aug. 1866
512	Wheal Bassett, c. l, Illogan	5 2 6	75	80 90	621 0 0	0 10 0	Aug. 1866
1024	Wheal Friendship, c. l, Devon	20 0 0	3	3	219 0 0	0 10 0	May 1866
4205	Wheal Killy, c. l, St. Agnes	5 4 6	3	3	226 15 0	0 10 0	Apr. 1866
2900	Wheal Rose, c. l, St. Agnes	5 4 6	3	3	226 15 0	0 10 0	Apr. 1866
280	Wheal Seton, c. l, Camborne	58 10 0	145	150 160	54 0 0	0 10 0	June 1866
1040	Wheal Trevelyan, c. l, Liskeard	5 17 0	9	9 11	54 0 0	0 10 0	June 1866

## BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

1055	Craddock Moor, c. St. Cleer	10 11 0	—	—	7 12 0	0 10 0	June 1865
1200	Bryn Gwyn, l, Mold	9 0 0	—	—	3 6 0	0 10 0	Aug. 1865
2880	Clifford Amalgamated, c. Gwent	31 0 0	10	12 12 1/2	35 6 0	0 10 0	June 1865
6000	East Carn Brea, c. Redruth	3 15 0	1 1/4	2 3/4	5 0 0	0 10 0	June 1865
6000	Minning Co. of Ireland, c. l, c. l	7 0 0	—	—	19 18 11	0 10 0	July 1865
6000	New Birch Tor and Vistifer Cons. l	1 6 6	—	—	19 18 11	0 10 0	July 1865
6000	West Bassett, c. l, Illogan	1 10 0	—	—	26 14 0	0 10 0	Oct. 1865
1024	Wheal Exmouth, c. l, Christow	8 0 0	5 1/2	6 7	29 17 6	0 10 0	Mar. 1865
1024	Wheal Mary Ann, c. l, Menheniot	8 0 0	5 1/2	6 7	29 17 6	0 10 0	Mar. 1865
7000	Wicklow, c. l, Wicklow	2 10 0	—	—	15 11 0	0 10 0	Nov. 1865

## FOREIGN DIVIDEND MINES.

15000	Cape Copper Mining	7 0 0	9	10 10 1/2	2 12 6	0 10 0	Apr. 1866
1500	East Indian Coal, Calcutta	10 0 0	—	—	1 3 4	0 3 0	Feb. 1866
25000	Fortuna, l, Spain	2 0 0	2 1/2	2 1/2	7 1/2	per cent.	per annum.
10000	Gonessa, l, Spain	3 0 0	2	1 2	11 6 4	0 5 0	Jan. 1865
9275	New Wilbergh, c. l, c. l	3 0 0	3	3	10 10 0	0 5 0	Aug. 1865
50000	Panuello, c. l, c. l	3 0 0	3	3	10 10 0	0 5 0	Aug. 1865
10000	Pontbarrat, s-l, France	20 0 0	—	—	2 19 8	0 18 8	Dec. 1865
97500	Port Phillip, c. l, Clunes	1 0 0	3 1/2	3 3/4	0 15 6	0 10 0	July 1865
20000	Scottish Australian Mining Co. l	1 0 0	3 1/2	3 3/4	0 15 6	0 10 0	July 1865
11000	St. John del Rey, Brazil	15 0 0	48	47 49	68 15 0	0 4 0	June 1866
50000	Victoria (London) [25000 £1 pd., 25000 £2 pd.]	1 0 0	—	—	0 9 0	0 10 0	June 1866
40000	West Canada Mining Company	1 0 0	—	—	0 19 6	0 10 0	May 1865

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quenangen United, c. l	4 10 0	—	—	4 5 0	0 15 0	Nov. 1863
20000	Australian, c. l, South Australia	7 6 6	—	—	0 2 0	0 10 0	June 1863
2464	Barras, c. l, South Australia	5 0 0	—	—	325 0 0	0 5 0	Dec. 1864
12000	Cerro Copper Company, c. l, Cuba	40 0 0	4	5 6	101 0 0	0 10 0	Jan. 1865
10000	Copado Mining Company, Chile	16 0 0	—	—	6 18 0	0 10 0	Nov. 1862
100000	Don Pedro No. del Rey, Brazil	0 14 0	1	1 1/2	0 0 0	0 9 0	Dec. 1863
70000	English and Australian, c. l	5 0 0	—	—	1 12 0	0 10 0	Aug. 1864
20000	Gen. Mining Assoc., Nova Scotia	20 0 0	21	19 21	21 0 0	0 10 0	June 1864
60000	Kapunda Mining Co., Australia	1 0 0	—	—	0 12 0	0 10 0	June 1864
10000	Luisana, c. l, Portugal	2 0 0	—	—	1 7 0	0 10 0	June 1864
103813	Mariquita and New Granada	1 0 0	—	—	0 9 6	0 10 0	June 1864
43174	United Mexican, c. l, Mexico	28 5 0	13 1/2	13 1/2	2 19 0	0 5 0	Sept. 1864
10000	Vancouver, c. l, c. l	5 0 0	—	—	0 15 0	0 10 0	Nov. 1864
45000	Yudnamutana, c. l, S. A.	3 0 0	—	—	0 5 0	0 10 0	Aug. 1863

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
35000	Alamillos, l, Spain	2 0 0	13 1/2	—	—
100000	Anglo-Brazilian, c. l, Brazil	0 8 0	—	—	—
40000	Britannia Silver-Lead Mines, France	1 8 0	—	—	—
25000	Capula, c. l, Mexico	1 8 0	—	—	—
10000	Chontales, c. l, Nicaragua	1 8 0	—	—	—
10000	Copado Mining Co., Chile	1 8 0	—	—	—
300	Copper Mines Co. of South Australia	150 470 pd.]	—	—	—
50000	East del Rey, c. l, Brazil	2 15 0	—	—	—
15000	El Chico Silver Mining and Reduction Company	4 10 0	—	—	—
8000	English and Canadian Mining Company	5 0 0	—	—	—
40000	Fortuna, c. l, West Australia	2 0 0	—	—	—
50000	Fronthof and Bolivia, c. l, New Granada	1 7 6	—	—	—
80000	Great Northern, c. l, South Australia	1 1 0	—	—	—
10000	Great Barrier Land, Mining, c. l, New Zealand	5 0 0	—	—	—
12000	Nerodua Coal and Iron	6000 £3 pd., 3000 £3 pd.]	—	—	—
50000	Nova Scotia Land and Gold	1 15 0	—	—	—
15000	Otea, c. l, New Zealand	1 10 0	—	—	—
15000	Pacheca Silver Mining Company, Mexico	1 0 0	—	—	—
6000	Peel River Land and Mineral	100 0 0	—	—	—
20000	Pestana, c. l, c. l	1 10 0	—	—	—
23000	Quebrada, c. l, Venezuela	10 0 0	—	—	—
10178	Rhinisch Consolidated, l, [6000 £3 pd., 4178 £2 10 pd.]	10 0 0	—	—	—
50000	Rossa Grande, c. l, Brazil	0 7 6	—	—	—
15000	San Pedro del Monte, c. l, Mexico	3 0 0	—	—	—
10000	San Roque, l, Spain	5 0 0	—	—	—
20000	Val Antioquia, c. l, c. l	0 15 0	—	—	—
6000	Val Sassam, c. l, c. l	5 10 0	—	—	—
5000	Valladolid Mining Company	20 0 0	—	—	—
45000	Victor Emanuel, c. l, Italy	1 0 0	—	—	—
20000	Washoe, c. l, [10000 £3 pd., 10000 £4 pd.]	1 0 0	—	—	—
80000	Worthing, c. l, South Australia	1 0 0	—	—	—
7500	York Peninsula, South Australia	1 0 0	—	—	—

## BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Bus. done.	Last Call.
40000	Alliance	25 0 0	21	20 21	—
40000	Australian Mort. Land and Finance	5 0 0	4 1/2	—	—
30000	Australasia	40 0 0	68	67 69	—
10000	Bank of Egypt	25 0 0	30	28 30	—
25000	Bank of India	10 0 0	—	5 7	—
50000	Bank of New Zealand	25 0 0	41	38 41	—
10000	Bank of New Zealand	19 0 0	18	17 19	—
25000	Bank of Queensland	25 0 0	—	—	—
50000	Brazilian and Portuguese	10 0 0	9	8 9	—
8915	Canada Company	32 10 0	80	77 80	—
50000	Canadian Loan and Investment	2 10 0	1 1/2	—	—
40000	Chart. Merc. India, Aust. & China	20 0 0	19	17 19	—
20000	Char. Merc. India, Aust. & China	25 0 0	37	36 38	—
20000	Colonial	10 0 0	17	15 17	—
40000	Company of African Merchants	3 0 0	3	2 3	—
150000	Consolidated Bank	4 0 0	5	5 1/2	—
200000	Credit Foncier and Mobilier of England	8 0 0	5	4 5	—
10000	Discount Corporation	20 0 0	10	—	—
20000	East London	5 0 0	3 1/2	3 4	—
20000	English and Scottish	20 0 0	19	17 1/2 18 1/2	—
20000	General Credit and Finance of London	20 0 0	14	11 13	—
20000	Imperial Bank	20 0 0	4 1/2	4 1/2	—
150000	International Financial Society	5 0 0	3 1/2	3 1/2	—
300000	International Land Credit	6 0 0	—	—	—
4000	London African Trading	10 0 0	—	—	—
50000	London Chartd. Bank of Australia	20 0 0	22 1/2	22 24	—
87500	London and County	20 0 0	64	65 67	—
40000	London Financial Association	25 0 0	11 1/2	11 1/2 12	—
75000	London Joint-Stock	15 0 0	45	42 44	—
5000	London Mercantile and Exchange	10 0 0	—	—	—
10000	London and South-Western	20 0 0	17 1/2	16 1/2 17 1/2	—
50000	London and Westminster	20 0 0	92	92 94	—
50000	Mercantile and Exchange	11 10 0	—	3 3 1/2	—
17156	Metropolitan and Provincial	20 0 0	10	11 12	—
30000	Mineral Rights Association	1 0 0	1	1 1/2	—
20000	National of Australia	4 0 0	6	5 6	—
20000	National of Liverpool	10 0 0	14	12 14	—
40000	National	30 0 0	70	68 70	—
27500	New South Wales	20 0 0	45	43 45	—
40000	Union of Australia	25 0 0	48	47 49	—
80000	Union of London	15 0 0	48	47 49	—

## PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
3000	Bedford Unit, c, Tavistock	2 6 8	—	—	—
3200	Bedol Aur, l, Holywell	1 2 0	—	—	July, 1866
500	Billins, l, Flint	30 0 0	—	—	July, 1866
1000	Blaendyffryn, s-l	2 0 0	—	—	Mar. 1866
1000	Bolagney Hill Consols, c	0 5 0	—	—	July, 1866
1248	Boscawen, l, c, St. Just	6 0 0	—	—	July, 1866
5000	Bottle Hill, l, c, St. Just	1 14 0	—	—	June, 1866
1600	Brixham Hematite Iron <sup>rs</sup> .	6 7 6	—	—	—
200	Brynfod Hall, l, Flint	28 0 0	—	—	Jan. 1866
5000	Bryn Gwlog, l, Flint	9 0 0	—	—	Jan. 1866
30000	Calbeck Fells, l, Cumber.*	1 2 6	13 <sup>1</sup> / <sub>2</sub>	—	Feb. 1866
1000	Cambrone Consols, c	18 0 0	—	—	July, 1866
1000	Cambrone Vn. & Wh. Fran. 11	8 0 10	20 <sup>1</sup> / <sub>2</sub>	3 1	July, 1866
8000	Cape Cornwall, c, St. Aust.	1 10 0	—	—	July, 1866
2000	Caradon & Phenix Cons.	0 12 0	—	—	April, 1866
914	Caran Cons., c, St. Cleer	30 13 6	—	—	Aug. 1866
1000	Carra Brea, c, l, Illogan	21 0 0	—	—	—
6000	Carn Camborne, c, Cambn.	2 0 0	—	3 <sup>1</sup> / <sub>2</sub> 3 <sup>1</sup> / <sub>2</sub>	July, 1866
4005	Cardigan Cons., * [1000 £2 pd.]	3005 £4 5s. pd.]	—	—	April, 1866
1000	Cardiganshire, l	10 0 0	—	—	Mar. 1866
2000	Carysfort, 32 <sup>1</sup> / <sub>2</sub> £3 pd., 1860	£13 <sup>1</sup> / <sub>2</sub> pd.]	—	—	Mar. 1866
86000	Castell Carr, Donan, c	0 8 0	—	—	—
2500	Cefn Cllen, l, Flint*	2 15 0	—	—	April, 1866
2500	Central Minera, l	3 7 6	—	—	April, 1866
16000	Central Smallbeach l	1 0 0	—	—	July, 1866
3000	Chiverton, l, Perranzabaz	8 17 6	5 4 4 <sup>1</sup> / <sub>2</sub>	—	Aug. 1866
3000	Chiverton Moor, l, Perranz	5 11 0	5 6 <sup>1</sup> / <sub>2</sub> 6 <sup>1</sup> / <sub>2</sub>	—	Aug. 1866
3000	Clovaughan Unit, l, Ponteryz	2 10 0	—	—	July, 1866
3000	Clovaughan, c, St. Aust.	0 8 0	—	—	July, 1866
10000	Coalartha & Bonds [5000 £1 pd.]	10700 £18s. pd.]	—	—	Feb. 1865
256	Condurow, c, l, Camborne	76 0 0	—	—	—
5000	Connorree, c, sml, Wicklo <sup>rs</sup> .	1 0 0	—	—	July, 1866
2450	Cook's Kitchen, c, Illogan	19 14 5	2 <sup>1</sup> / <sub>2</sub> 3 <sup>1</sup> / <sub>2</sub> 4	—	July, 1866
1024	Copper Hill, c, Redruth	12 10 0	—	—	June, 1866
6000	Cornish Clay and Tin	1 0 0	—	—	July, 1866
4000	Corwall Great Consols	1 0 0	1 1 <sup>1</sup> / <sub>2</sub>	—	July, 1866
861	Crane, c, l, Illogan	32 8 0	—	—	July, 1866
2000	Crenver & Wh. Abraham	4 0 0	—	—	Mar. 1866
2500	Crelake, c, Tavistock	3 1 0	—	—	Aug. 1865
2000	Crowan Consols, c, Crowan	5 11 0	—	—	Dec. 1865
1428	Crowlwm, l, Llanidloes	1 13 0	—	—	Dec. 1864
6000	Cuddra, l, St. Austell	4 18 0	—	—	June, 1866
5000	Dale, l, North Stafford	1 0 0	5 <sup>1</sup> / <sub>2</sub>	—	July, 1866
1000	Darwin, l, Redruth	6 6 3	—	—	April, 1866
4076	Devon and Cornwall	5 6 3	—	—	—
5000	Devon Great Maria	7 0 0	—	—	May, 1866
1024	Devon Wheel Lopes, c	17 0 0	—	—	July, 1866
2000	Drake Walls, l, Calstock	2 1 0	—	—	—
656	Ding Dong, l, Gulval	48 14 6	—	—	Sept. 1863
3000	Dolfrwynog, c	0 15 0	—	—	June, 1864
3000	Dyffrynwg, l, Wales	12 6 0	—	7 8	—
1000	Eagle, c, Redruth	1 0 0	—	—	Feb. 1865
512	East Bassett, c, Redruth	29 10 0	15 22 <sup>1</sup> / <sub>2</sub> 25	—	—
1000	East Bassett and Grylls, l	3 5 0	—	—	July, 1865
6000	East Bottle Hill, l, Plympton	0 6 6	—	—	Oct. 1865
2000	East Boller, c, Gwennap	2 0 0	—	—	Mar. 1865
2000	East Chiverton, l, Perranz	2 8 6	2 <sup>1</sup> / <sub>2</sub> 2 2 <sup>1</sup> / <sub>2</sub>	—	May, 1866
2048	E. Falmouth, s-l, Kenwyn	5 6 6	—	—	April, 1864
1000	E. Falmouth, c, Camborne	3 6 0	2 <sup>1</sup> / <sub>2</sub> 2 <sup>1</sup> / <sub>2</sub> 2 <sup>1</sup> / <sub>2</sub>	—	Aug. 1866
1000	E. Gunnell, c, Redruth	3 0 0	—	—	Aug. 1866
6145	E. Jane, s-l, Cardilham	2 17 6	—	—	April, 1865
5000	East Laxey, l, Isle of Man	2 10 0	—	—	Dec. 1865
1000	East Moor, s-l	0 5 0	—	3 <sup>1</sup> / <sub>2</sub> 1 <sup>1</sup> / <sub>2</sub>	Aug. 1866
8386	E. Providence, l, Uny Lel.	4 18 3	—	—	Aug. 1866
5000	E. Tresavean, c, Gwennap	0 10 0	—	—	May, 1865
5000	East Snaefell, l, l. of Man	2 0 0	—	—	Oct. 1864
5610	East Smeaton, c, Camborne	3 0 0	—	—	Oct. 1865
5000	East St. Just, c	2 0 0	—	—	Jan. 1866
256	East Tolgus, c, Redruth	96 0 0	—	—	April, 1866
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—	—	Jan. 1865
2048	East Wheel Grylls, l, c	3 10 0	—	—	July, 1866
5000	E. Wh. Russell, Tavistock	11 11 0	2 <sup>1</sup> / <sub>2</sub> 2 <sup>1</sup> / <sub>2</sub> 2 <sup>1</sup> / <sub>2</sub>	—	July, 1866
5000	Ellen Unit, c, s, St. Agnes	—	—	—	Nov. 1865
5144	Esther Unit, l, Cardilham	0 13 0	—	—	July, 1865
3000	Fortescue, c, Redruth	0 12 0	—	—	—
940	Fowey Con, c, Tywardreath	5 1 6	—	—	June, 1866
5000	Furze Hill Wood Cons. Buckl.	1 16 0	—	—	Feb. 1866
5000	Furdon, c [5000 £1 10s. pd.]	—	—	—	Mar. 1865
9226	Garden, l, Morvah	5 12 9	—	—	Mar. 1866
9096	Garlidna Unit, l, Wendron	5 5 7	—	—	Feb. 1866
5000	Gawton, c, Tavistock	3 5 6	—	—	Feb. 1866
5000	Gen. Min. Co. of Ireland, c	4 0 0	—	—	—
5000	Glasgow, c, Cardigan	13 5 0	—	—	Sept. 1865
5000	Golech Hill, l, Flintshire	1 13 5	—	—	Aug. 1866
5000	Gomana, c, St. Cleer	5 14 0	—	—	—
4000	Gothic, s-l, Cardigan	2 10 0	—	2 <sup>1</sup> / <sub>2</sub> 3 <sup>1</sup> / <sub>2</sub>	July, 1866
4886	Grambler and St. Aubyn	69 0 0	2 2 3	—	July, 1866
5000	Great Caradon, c, St. Ives	3 6 0	—	—	April, 1866
5000	Great Devon and Bedford	2 15 0	—	—	Mar. 1866
5000	Great East London, c	2 15 0	—	—	—
5000	Great Mona, l, Isle of Man	2 10 0	—	—	Jan. 1866
5000	Great North Downs, c	5 8 0	—	—	June, 1866
5000	Gr. Northern of Ireland	0 10 0	—	—	—
2500	Gr. No. Laxey (Isle of Man)	0 10 0	2 1 <sup>1</sup> / <sub>2</sub> 2	—	Feb. 1865
5000	Great Retallack, s-l, b	1 17 0	—	3 <sup>1</sup> / <sub>2</sub> 3 <sup>1</sup> / <sub>2</sub>	July, 1866
5000	Great South Chiverton, s-l	1 9 6	—	—	July, 1866
5000	Gr. So. Tolgus, c, Redruth	1 0 0	—	—	July, 1866
5000	Great Wh. Chiverton, c	1 0 0	—	—	June, 1864
313	Great Wheel Badden, l	7 17 6	—	—	June, 1863
5000	Gt. Wh. Busy, c, l, Kenwyn	16 19 6	—	—	July, 1866
798	Gt. Wh. Fortune, l, Breage	26 2 0	3 4 5	—	June, 1866
5000	Great Wh. Metal, Breage	2 0 0	—	—	May, 1865
119	Great Work, l, Germoe	100 0 0	—	—	—
500	Grit and Stapley, l	10 0 0	—	—	July, 1864
240	Gunnislake Clitter, l, c	4 11 6	—	—	Feb. 1866
962	Gwysyllt, c, Llanidloes	2 9 0	—	—	Aug. 1866
1000	Hallenbeagle, c, Kenwyn	2 9 0	—	—	—
400	Harwood, l, Durham	0 6 0	—	—	Sept. 1864
5000	Havan, l, Cardigan	4 15 0	—	—	Mar. 1866
219	Hawkmoor, l, c, Calstock	3 14 0	—	—	July, 1866
5000	Hendre, l, Flint	4 0 0	—	—	April, 1865
5000	Hilozan, l, c	0 19 6	—	—	June, 1866
5000	Lady Bertha, c, Tavistock	3 6 0	—	—	July, 1866
5000	Leawood, c, Redruth	3 6 0	—	—	June, 1866
1925	Lelands and St. Aubyn, l	19 13 4	—	—	Mar. 1866
962	Leant Cons. l, Uny Lelant	35 0 0	—	—	Mar. 1863
160	Levant, c, l, St. Just	10 8 1	—	—	June, 1866
5000	Long Lake, l, Flint	6 15 0	—	—	Jan. 1866
500	Lower Park, l, Denbigh	3 11 0	—	—	Jan. 1864
500	Maes-y-Safn, l	20 0 0	—	—	—
5000	Manillin, c, Lostwithiel	4 4 4	—	—	May, 1865
5000	Mertlyn, c	3 15 6	—	—	Jan. 1866
5000	Minera Western Bound <sup>ry</sup>	0 2 6	—	—	Sept. 1863
765	Molland, c, South Moulton	3 13 0	—	—	Aug. 1865
540	Mount Pleasant, l, Mold	4 0 0	—	—	—
924	Nangles, l, c, Kea	25 0 0	—	—	May, 1866
500	Nantes, l, Cardigan	1 0 0	—	—	July, 1866
512	Nant Minera, l	6 10 0	—	—	Jan. 1865
5000	Nanty Mines, l, Montgom.	20 0 0	—	—	—
5000	New Cornish [12000 £1 pd.]	12000 £18s. pd.]	2 2 <sup>1</sup> / <sub>2</sub> 2 2 <sup>1</sup> / <sub>2</sub>	—	Mar. 1866
5000	N. Crow Hill, l, St. Stephen	3 1 0	—	—	Dec. 1864
5000	New East Birlch Tor, l	1 2 6	—	—	Aug. 1866
514	New E. Russell, c, Tavistock	0 9 6	—	—	Nov. 1865
5000	Nether Heath, l, Dufton	1 1 0	—	—	May, 1865
5000	New Hendra, l, c, Breage	14 11 0	—	—	Mar. 1866
5000	New Penbroke, l, c	0 19 0	—	—	July, 1866
5000	New Trevelan, c, St. Aust.	4 4 0	—	—	May, 1866
5000	New Trevenen, l, Wendron	8 14 0	—	—	May, 1866
790	Newtonards Min. Co, Down	50 0 0	—	—	—
5000	New Wheel Lovell, l	1 9 0	—	—	Aug. 1866
5000	New Wheel Martha, c	1 0 0	—	—	July, 1866
5000	New Wh. Seton, c, Cambn.	51 15 0	40 20 30	—	May, 1866
5000	North Chiverton, l	2 6 0	—	—	June, 1866
5000	North Devon, s-l	0 16 0	—	—	July, 1866
5000	No. Dolgellau, c, Redruth	2 10 0	—	—	April, 1866
5000	North Downs, c, Redruth	4 11 4	—	3 <sup>1</sup> / <sub>2</sub> 1 <sup>1</sup> / <sub>2</sub>	Aug. 1866
5000	No. Grambler, c, Redruth	6 14 9	—	—	Aug. 1866
5000	N. Hallenake [5000 £1 pd.]	8000 £8, 6d. pd.]	—	—	July, 1865
5000	North Jane, s-l, Kenwyn	28 16 0	—	—	May, 1866
5000	North Kil Hill, l, c	1 0 0	—	—	—
5000	North Levant, l, c, St. Just	10 3 0	—	—	Sept. 1865
5000	Nth. Minera, l, Wrexham	1 0 0	—	—	July, 1866
5000	No. Penryn, c, Llanidloes	1 0 0	—	—	May, 1864
5000	No. Penryn, c, Llanidloes	4 8 6	5 <sup>1</sup> / <sub>2</sub> 6 6 <sup>1</sup> / <sub>2</sub>	—	June, 1866
5000	No. Roskear, c, Camborne	46 5 0	2 2 <sup>1</sup> / <sub>2</sub> 3	—	July, 1866
5000	No. Shepherds, l, Newlyn	6 0 0	—	—	July, 1866
5000	No. Trekerby, c, St. Agnes	1 9 0	2 <sup>1</sup> / <sub>2</sub> 3 3 <sup>1</sup> / <sub>2</sub>	—	—
5000	North Wheel Bassett, c, H.	5 0 0	—	—	April, 1866
5000	North Wheel Croft, c	3 5 4	1 1 1 <sup>1</sup> / <sub>2</sub>	—	July, 1866
44	N. Wh. Robert, Smp. Spinye	4 6 6	—	—	Feb. 1866
5000	Old Baked Tor, c, Calstock	1 12 6	—	—	Oct. 1865
5000	Old Gunnislake, Calstock	1 12 6	—	—	May, 1866
5000	Orsedd, l, Flintshire	0 8 0	—	—	—
5000	Par Consols, c, St. Blazey	1 17 0	—	—	Mar. 1866
5000	Parand St. Blazey Cons., l	1 16 0	—	—	Nov. 1866